Roland®

24 TR / 24-bit / 96 kHz
DIGITAL STUDIO WORKSTATION

VS-2480 Version 2.0
VS-2480CD

USER GUIDE

Before using this unit, carefully read the sections entitled: "IMPORTANT SAFETY INSTRUCTIONS" (Owner's Manual p. 2), "USING THE UNIT SAFELY" (Owner's Manual p. 3, 4), and "IMPORTANT NOTES" (Owner's Manual p. 5).
These sections provide important information concerning the proper operation of the unit. Additionally, in order to feel assured that you have gained a good grasp of every feature provided by your new unit, User Guide, Owner's Manual, and Appendices should be read in their entirety. The manual should be saved and kept on hand as a convenient reference.

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Preparations

Required Preparations

The VS-2480 / 2480CD is an audio recorder that allows multi-track recording to a hard disk. To make a multi-track recording, you will need at least the following items.

- VS-2480 / 2480CD
- Power cable (1: included)
- Internal IDE hard disk (HDP35 series: sold separately in some countries)
- Audio device for master output, monitor output, or headphones (sold separately)
- Microphone or other audio source to record, such as an electric guitar, synthesizer, or CD player etc. (sold separately)
- Short Cut Seal

User guide will also explain the use of the following equipment, which you may purchase as desired.

- VS8F-2 (effect expansion board: The VS-2480 / 2480CD contains one VS8F-2, sold separately for increase.)
- External CD-R / RW drive (sold separately)

?
IDE (Appendices p.12)

NOTE
The CD-R / RW drive becomes necessary without fail to Recover the demo performance to the HDP35 series from CD-ROM of a belonging.

Installing an Internal Hard Disk VS-2480

VS-2480 In some countries, VS-2480's do not come with the Hard Disk installed. A Roland HDP35 series hard disk (sold separately in some countries) can be installed in the VS-2480. In order to take full advantage of the VS-2480's functionality for the number of tracks that can be recorded / played back simultaneously, we recommend that you install the HDP35-40G or higher model.

VS-2480CD The VS-2480CD contains an internal 80 GB hard disk. The procedure described below is not required.

■ Cautions When Installing a Hard Disk

- Use a Philips screwdriver that is suitable for the size of the screw (a number 2 screwdriver). If an unsuitable screwdriver is used, the head of the screw may be stripped.
- To remove a screw, rotate the screwdriver counter-clockwise. To tighten a screw, rotate the screwdriver clockwise.

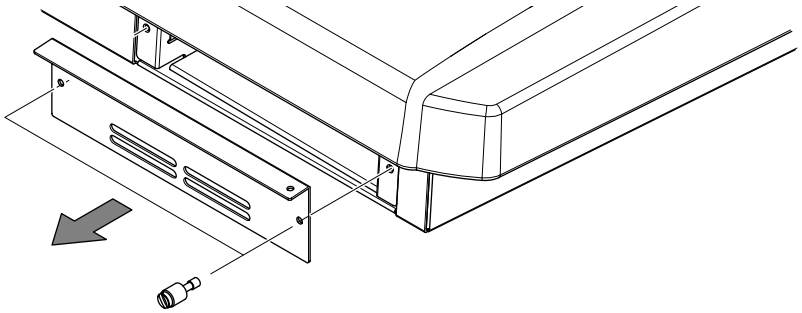
- When installing a hard disk, remove only the specified screws.
- Be careful that the screws you remove do not drop into the interior of the VS-2480.
- Do not leave the front panel cover in a detached state. Be sure to reattach it after the hard disk has been installed.
- Do not touch any of the printed circuit pathways or connection terminals.
- Be careful not to cut your hand on the edge of the installation bay.
- When circuit board installation is complete, double-check your work.

1. Turn off the power of the VS-2480 and of all connected devices, and disconnect all cables from the VS-2480.

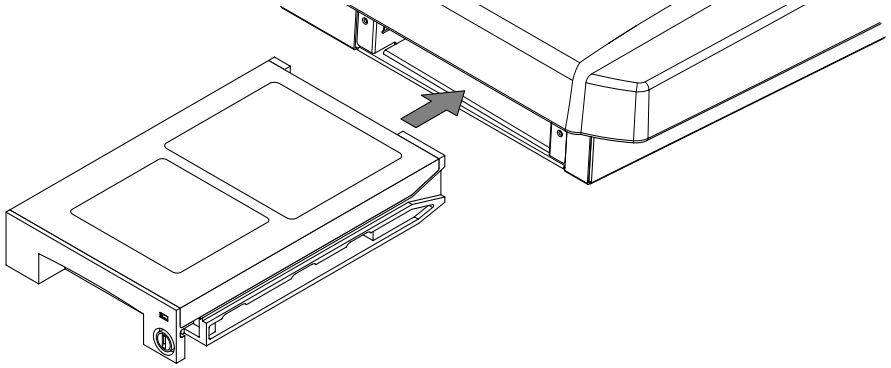
NOTE
The explanations in this manual include illustrations that depict what should typically be shown by the display. Note, however, that your unit may incorporate a newer, enhanced version of the system, so what you actually see in the display may not always match what appears in the manual.

NOTE
The VS-2480 saves all of the data, such as performance data, mixing data, system data, etc., on a hard disk drive. Thus, it cannot operate without either having the HDP35 series hard disk.

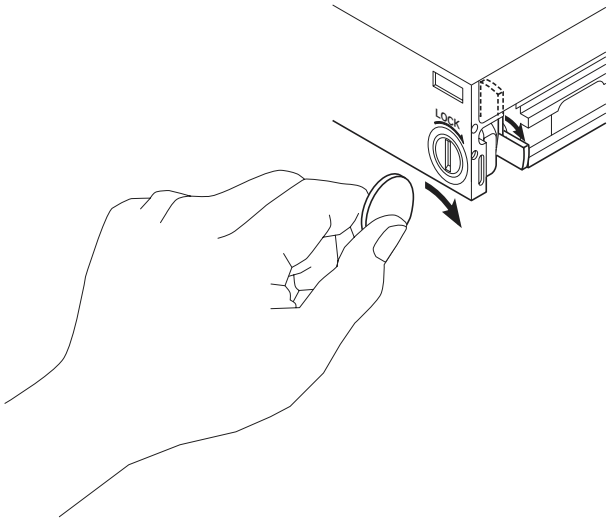
2. Remove the front panel cover from the VS-2480.



3. With the warning label of the hard disk facing upward, slide it gently into the installation bay as far as it will go. You can hook the indentation of the attachment hardware over the protrusion on the chassis of the VS-2480.



4. After you install the hard disk to the unit you use, please lock it to fix. Apply a coin, etc. to the lock and turn it clockwise until it clicks and it is locked correctly.



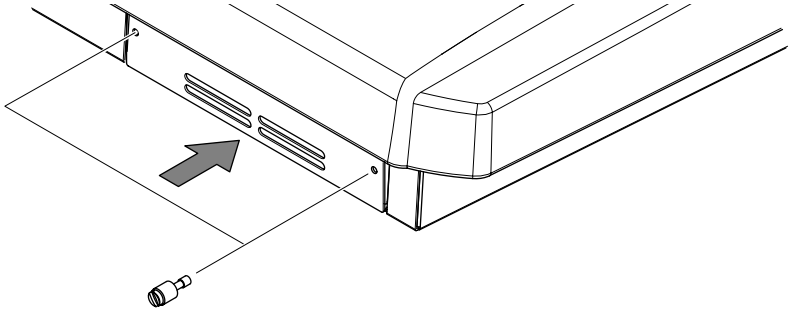
5. Reattach the front panel cover as it originally was.

NOTE

The hard disk inside the VS-2480CD cannot be removed or exchanged.

NOTE

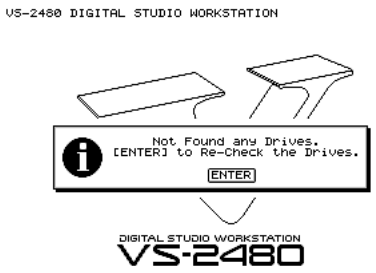
When transporting the VS-2480, please pack it in the original carton and shock-absorbing material, or the equivalent. If an internal IDE hard disk (HDP35 series) is installed, reverse the installation procedure to remove it from the VS-2480, pack the hard disk in its own packing carton for transport. If the VS-2480 is transported with the hard disk installed, project data may be lost, or the hard disk itself may be damaged.



6. As described in "**Turning On the Power** (p. 19)," turn on the power and verify that the VS-2480 starts up correctly.

If the Display Indicates "Not Found any Drives"

The internal hard disk was not recognized correctly. Use the rear panel power switch to turn off the power (p. 23), and re-install the hard disk correctly.



NOTE

When you turn on the power after an unformatted disk has been installed, the "Format Drive" screen will appear automatically. Follow the displayed instructions to format the disk.

French language
for Canadian Safety Standard

Installation de dispositifs optionnels (French language for Canadian Safety Standard)

■ Précautions à prendre lors de l'installation de dispositifs optionnels

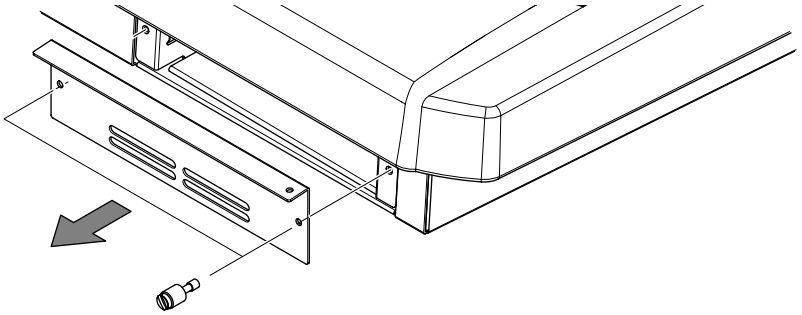
- Toujours éteindre et débrancher l'appareil avant de commencer l'installation de la carte. (modèle no série HDP35; User Guide p. 23).
- N'installez que les cartes de disque dur spécifiées (modèle no série HDP35). Enlevez seulement les vis indiquées.
- Veuillez suivre attentivement les instructions suivantes quand vous manipulez la carte afin d'éviter tout risque d'endommagement des pièces internes par l'électricité statique.
  - Toujours toucher un objet métallique relié à la terre (comme un tuyau par exemple) avant de manipuler la carte pour vous décharger de l'électricité statique que vous auriez pu accumuler.
  - Lorsque vous manipulez la carte, la tenir par les côtés. Évitez de toucher aux composants ou aux connecteurs.
  - Conservez le sachet d'origine dans lequel était la carte lors de l'envoi et remettez la carte dedans si vous devez la ranger ou la transporter.
- Veillez à ne pas laisser tomber de vis dans le châssis du VS-2480.
- Ne pas toucher aux circuits imprimés ou aux connecteurs.
- Ne jamais forcer lors de l'installation de la carte de disque dur. Si la carte s'ajuste mal au premier essai, enlevez la carte et recommencez l'installation.
- Quand l'installation de la carte de disque dur est terminée, revérifiez si tout est bien installé.

■ Installer un disque dur (série HDP35)

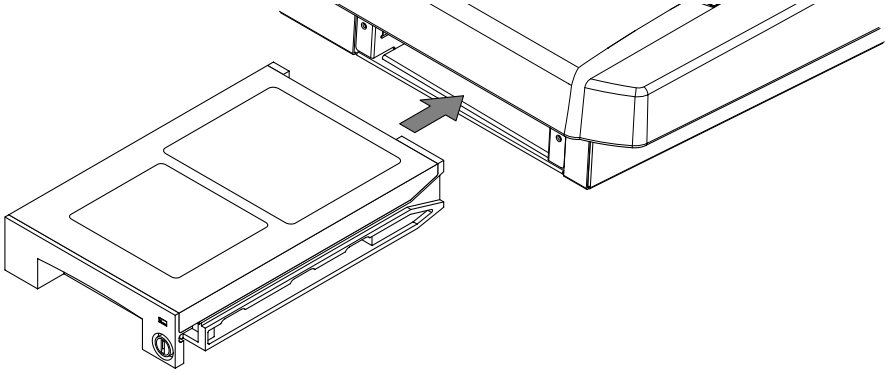
Le VS-2480 s'utilise avec un disque dur Roland de la série HDP35 vendu séparément. Pour maximiser les capacités du VS-2480 -nombre de pistes lors des enregistrements et lectures simultanés ou taille de la mémoire-, il est conseillé d'utiliser un modèle supérieur au 40 GB.

1. Éteindre tous les appareils reliés au VS-2480 et détacher tous les câbles qui y sont reliés.

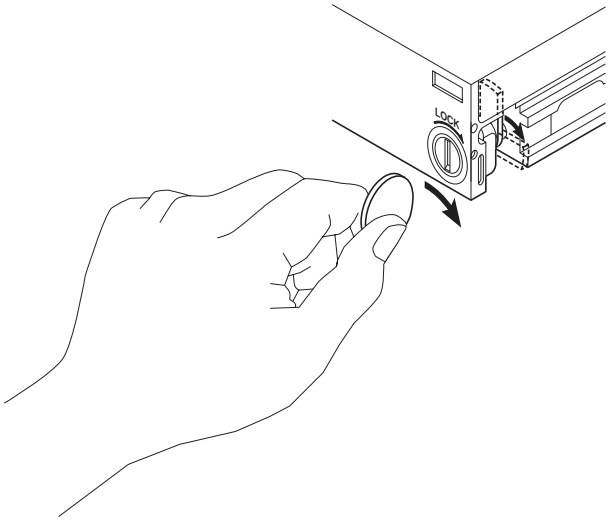
2. Enlever les vis indiquées sur le schéma suivant et détacher la plaque avant du VS-2480.



3. Orienter le disque dur de façon à ce que la face sur laquelle est collée l'étiquette de mise en garde se trouve sur le dessus.

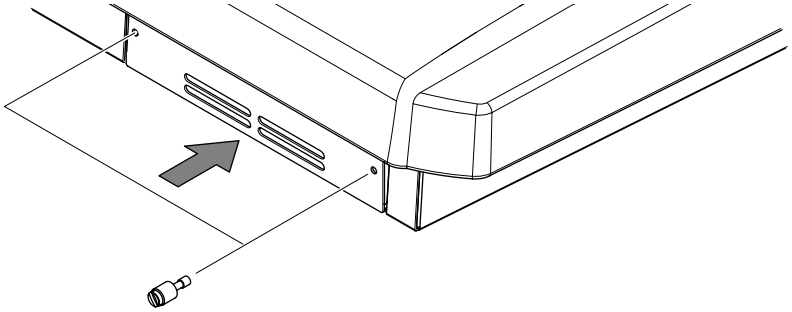


4. Après avoir installé le disque dur dans le VS-2480, fixez-le bien afin qu'il ne se détache pas.



NOTE

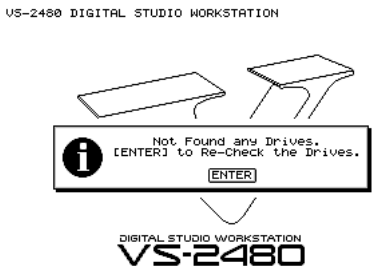
Afin d'éviter d'infliger des dommages à l'appareil lors de déplacements, enlever le disque dur installé en suivant, dans le sens contraire, les étapes de son installation de la p. 6. Il est impératif d'enlever le disque dur du VS-2480 lors de déménagement ou d'envoi. Lors de tels déplacements, ne pas oublier de bien remettre le disque dur dans son emballage d'origine et de placer le disque emballé dans l'espace prévu à cet effet dans la boîte d'emballage du VS-2480.



5. Pour ce faire, insérez une pièce de monnaie dans la fente et tournez dans le sens des aiguilles d'une montre jusqu'à ce que vous entendiez un déclic.

6. Cela signifie que le disque est bien fixé.

Les vis peuvent s'enlever avec les doigts. Si elles sont trop serrées pour être dévissées avec les doigts, vous pouvez utiliser une pièce de monnaie.
Si le message "Not Found any Drives" s'affiche, cela signifie que le disque dur installé n'est pas reconnu correctement. Éteindre l'appareil avec le bouton arrière et recommencer l'installation du disque dur.



Installing Effect Expansion Boards

The VS-2480/2480CD contains one VS8F-2 effect expansion board (EFFECT A section).
An additional three VS8F-2 boards can be installed in the VS-2480/2480CD.
When four VS8F-2 boards are installed, you will be able to use up to eight stereo effects simultaneously.

■ Cautions When Installing an Effect Expansion Board

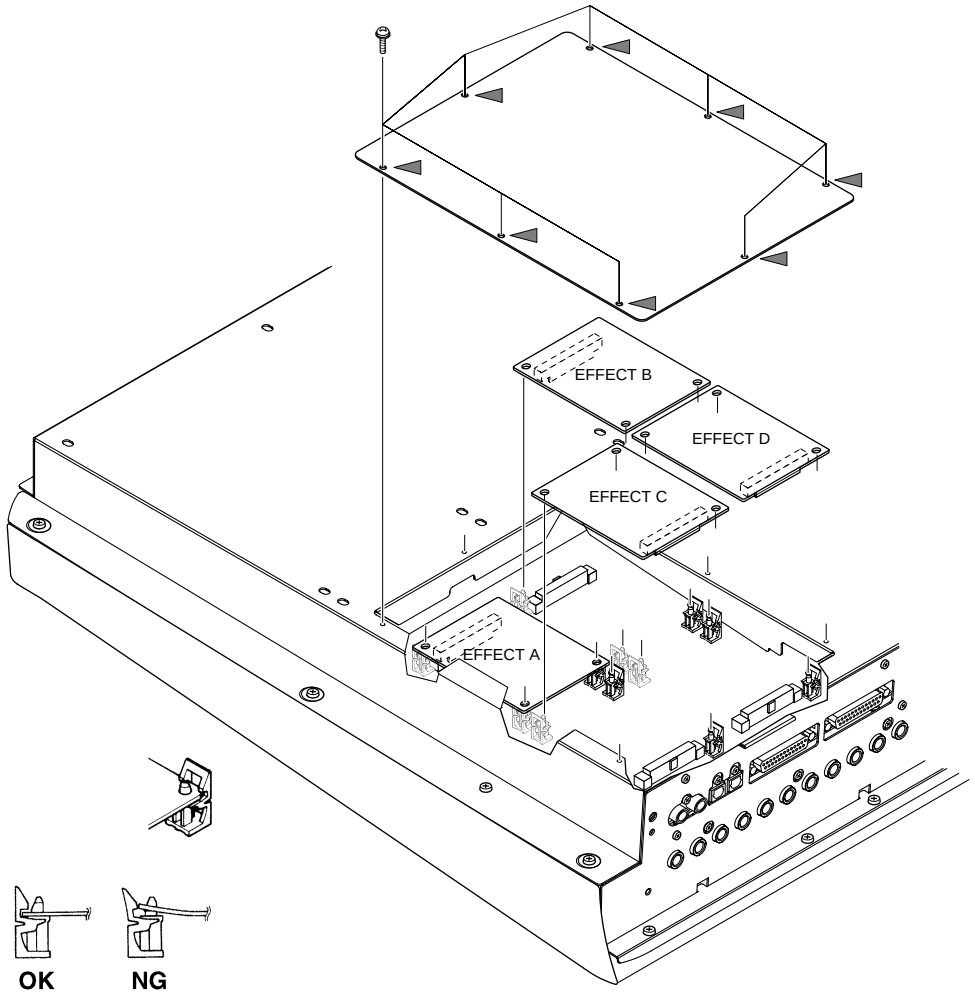
lTo avoid the risk of damage to internal components that can be caused by static electricity, please carefully observe the following whenever you handle the board.

- Before you touch the board, always first grasp a metal object (such as a water pipe), so you are sure that any static electricity you might have been carrying has been discharged.
- When handling the board, grasp it only by its edges. Avoid touching any of the electronic components or connectors.
- Save the bag in which the board was originally shipped, and put the board back into it whenever you need to store or transport it.
- Use a Phillips screwdriver that is suitable for the size of the screw (a number 2 screwdriver). If an unsuitable screwdriver is used, the head of the screw may be stripped.
- To remove a screw, rotate the screwdriver counter-clockwise. To tighten a screw, rotate the screwdriver clockwise.

- When installing effect expansion boards, remove only the specified screws.
- Be careful that the screws you remove do not drop into the interior of the VS-2480/2480CD.
- Do not leave the bottom cover in a detached state. Be sure to reattach it after the effect expansion boards have been installed.
- Do not touch any of the printed circuit pathways or connection terminals.
- Be careful not to cut your hand on the edge of the installation bay.
- Never use excessive force when installing a circuit board. If it doesn't fit properly on the first attempt, remove the board and try again.
- When circuit board installation is complete, double-check your work.

1. Before installing the VS8F-2, turn off the power of the VS-2480/2480CD and all connected devices, and disconnect all cables from the VS-2480/2480CD.

2. Turn the VS-2480/2480CD on its back, and remove only the screws shown in the following diagram.



3. Inside, there are four connectors and 12 resin pins. Insert the connectors of the VS8F-2 in to the internal connectors, and simultaneously insert the resin pins into the holes of the VS8F-2 to fasten the unit in place.
4. Use the screws that you removed in step 2 to fasten the cover back in place. This completes installation of the effect expansion board.
5. Connect the cables that you disconnected earlier.
6. Turn on the power, as described in "**Turning On the Power** (p. 19)."
7. After proper startup of the VS-2480 / 2480CD, press [EFFECT] and confirm that the FX 1 and 2 icons are displayed. If two VS8F-2 units are installed, press [EFFECT] and confirm that the icons for FX 1–4 are displayed.

NOTE

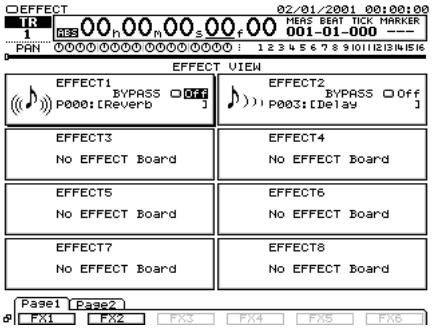
When turning the unit upside-down, get a bunch of newspapers or magazines, and place them under the four corners or at both ends to prevent damage to the buttons and controls. Also, you should try to orient the unit so no buttons or controls get damaged.

NOTE

Install VS8F-2 effect expansion boards in the order of EFFECT A, EFFECT B, EFFECT C, and EFFECT D. Do not skip slots when installing these boards.

MEMO

The VS-2480 / 2480CD comes equipped with one internal effects expansion board (containing two effects processors).



If the Display Indicates “No EFFECT Board”

The internal effect expansion board was not detected correctly. Turn off the power (Shutdown operation), as described in “**Turning Off the Power** (p. 23),” and re-install the effect expansion board correctly.

French language
for Canadian Safety Standard

Installation de la carte d'extension d'effets (French language for Canadian Safety Standard)

Quand une ou deux cartes VS8F-2 sont installées, il est possible d'utiliser jusqu'à 2 effets stéréo pour chaque carte sans brancher aucun équipement additionnel au VS-2480 / 2480CD. Deux de ces cartes peuvent être installées dans le VS-2480 / 2480CD. Il est recommandé d'installer au moins une carte d'extension à effet pour pouvoir utiliser pleinement le VS-2480 / 2480CD.

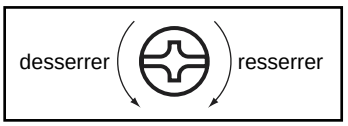
■ Précautions lors de l'installation de la carte d'extension d'effets

●Pour éviter tout dommage des composants internes pouvant provenir de l'électricité statique, veuillez suivre les conseils suivants quand vous installez la carte.

- Avant de toucher la carte, saisissez toujours un objet métallique (tuyau d'eau ou autre) pour être sûr que l'électricité statique se décharge.
- Quand vous saisissez la carte, prenez-la par les bords. Evitez de toucher les composants électroniques ou les connecteurs.
- Conservez le sac dans lequel la carte était emballée et remettez la carte dedans pour l'expédier ou l'entreposer.

●Utiliser un tournevis cruciforme correspondant à la taille de la vis (un tournevis numéro 2). En cas d'utilisation d'un tournevis inapproprié, la tête de la vis pourrait être endommagée.

●Pour enlever les vis, tourner le tournevis dans le sens contraire des aiguilles d'une montre. Pour resserrer, tourner dans le sens des aiguilles d'une montre.



●Lors de l'insertion de la carte d'extension d'effets, enlevez seulement les vis indiquées dans les instructions.

●Veillez à ne pas laisser tomber de vis dans le châssis du VS-2480 / 2480CD.

●Ne pas laisser le panneau de protection avant détaché. S'assurer de l'avoir rattacher après avoir installé le disque dur.

●Ne touchez aucun des circuits imprimés ni les bornes de connexion.

●Veillez à ne pas vous couper les doitgs sur le bord de l'ouverture d'installation.

●Ne jamais forcer quand vous installez une carte de circuits. Si la carte ne rentre pas correctement, ressortez-la et ressayez.

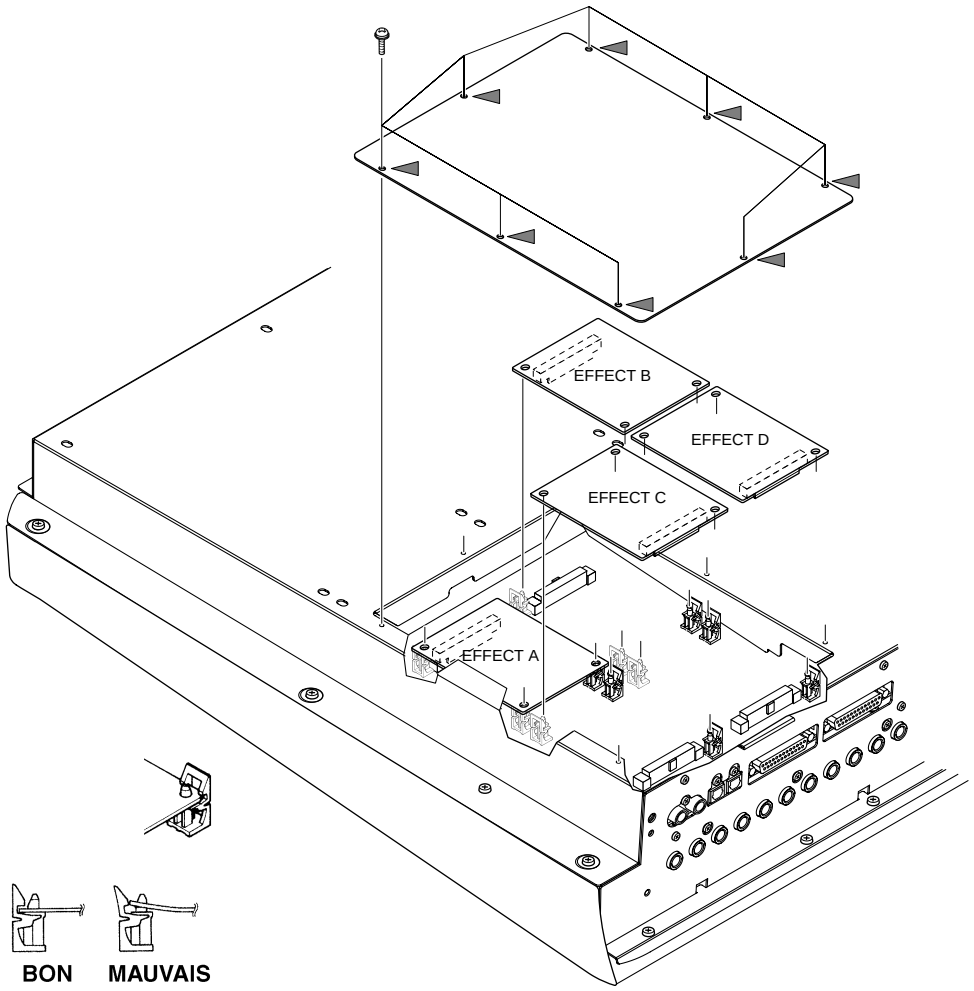
●Quand la carte est installée, vérifiez si l'installation est correcte.

1. Éteindre le VS-2480 / 2480CD et tous les appareils qui y sont reliés et débrancher tous les câbles du VS-2480 / 2480CD.

NOTE

Lorsque vous retournez à l'envers le VS-2480 / 2480CD, posez-le sur une surface molle afin de ne pas abîmer le tableau de commande ou l'écran de commande. Retournez le VS-2480 / 2480CD et enlevez seulement les vis indiquées sur la figure.

2. A l'intérieur se trouvent deux connecteurs et 12 goupilles de plastique. Reliez les connecteurs de la VS8F-2 à ceux du VS-2480 / 2480CD tout en insérant les goupilles de plastique dans les orifices de la VS8F-2.



NOTE

Si vous installez une seule carte d'extension d'effets, installez-la dans EFFECT A.

3. Reposez le couvercle en remettant les vis enlevées (comme spécifié) à l'étape 2. L'installation de la carte d'extension d'effets est terminée.

4. Rabranchez les câbles.

5. Mettez le VS-2480 / 2480CD sous tension en procédant comme indiqué dans "**Turning On the Power** (p. 19)."

6. Si le VS-2480 / 2480CD démarre normalement, appuyez sur la touche [EFFECT] et assurez-vous que les icônes FX 1,2 s'affichent. Si vous avez installé deux VS8F-2, lorsque vous appuyez sur la touche [EFFECT] , assurez-vous que les icônes FX 1--4 s'affichent.

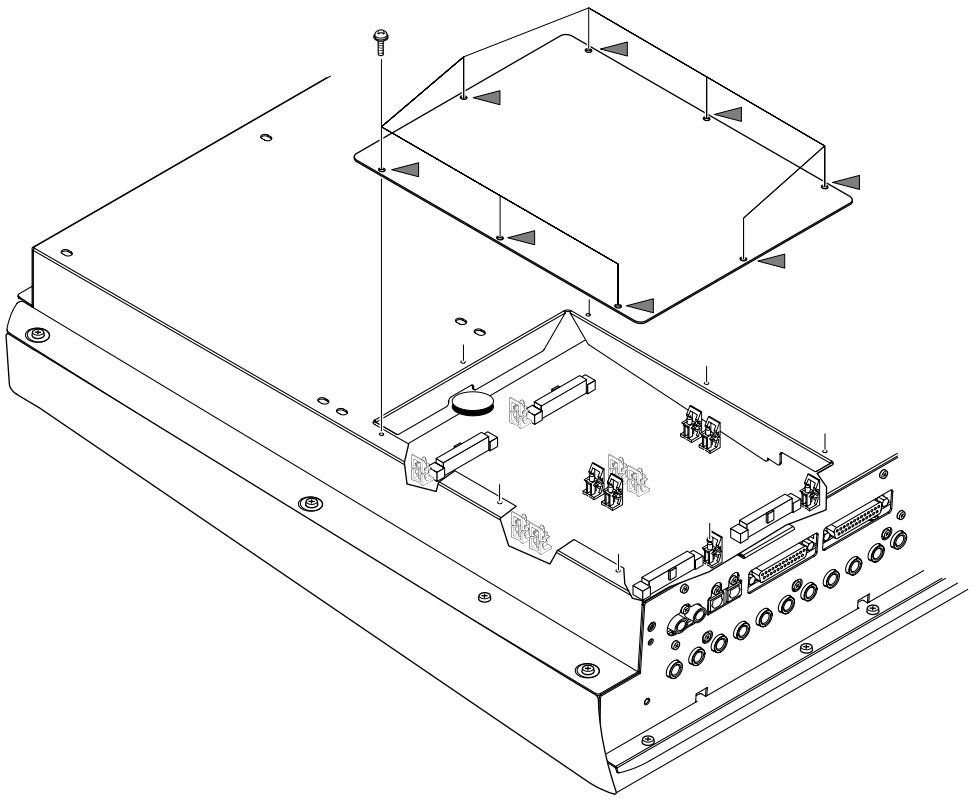
Si "No EFFECT Board" apparaît à l'écran

Ce message signifie que la carte d'extension d'effets n'a pas été reconnue correctement. Mettez l'appareil hors service et hors tension comme indiqué dans "Mise hors tension", puis réinstallez correctement le VS8F-2.

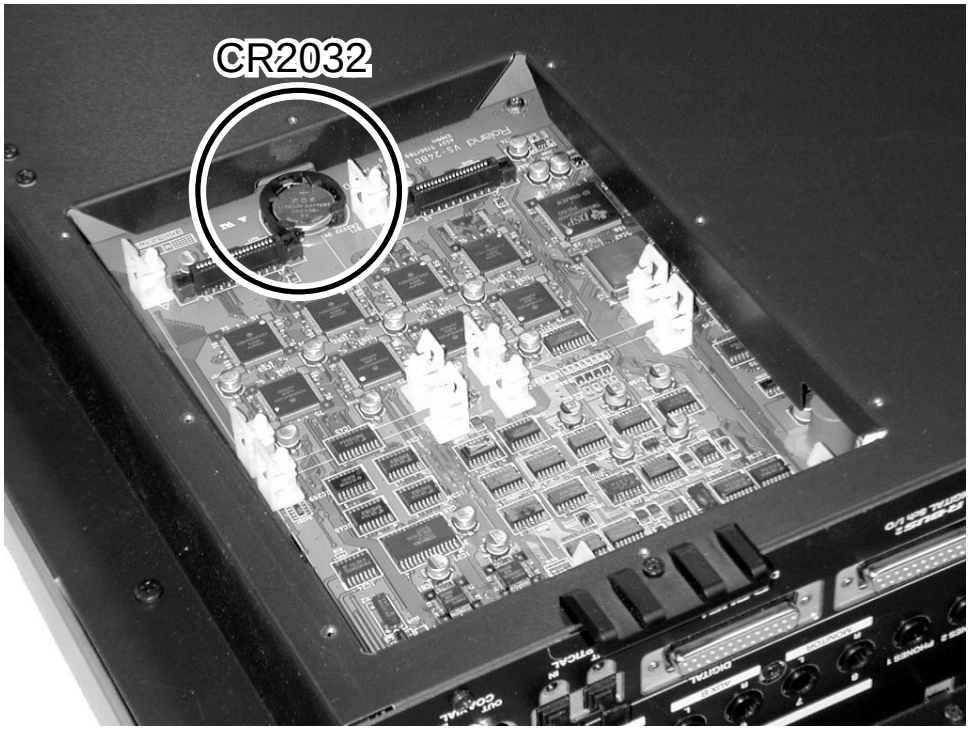
How to Replace the Battery

A lithium battery inside the unit powers its time-keeping functions, and provides the power for maintaining information about certain parameters. Once this battery gets weak, the unit may no longer be able to reliably perform the time management functions for data, or return to the state is was in before power was turned off. If you see a message warning that the battery is depleted, promptly change the battery, following the procedure below.

1. Before changing the lithium battery, store the current project (p. 49).
2. Turn off the power of VS-2480 / 2480CD and all connected devices, and disconnect all cables from VS-2480 / 2480CD.
3. Turn the VS-2480 / 2480CD on its back, and remove only the screws shown in the following diagram.



4. The battery should now be visible, as shown in the following.

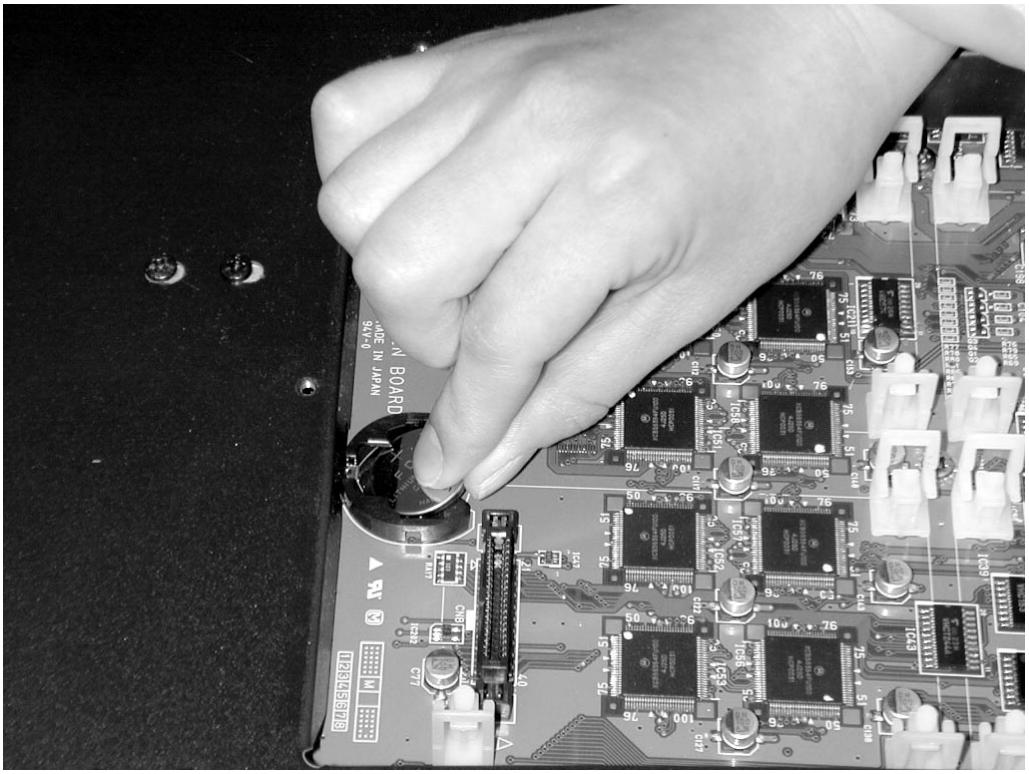


5. If Effect Expansion Board (VS8F-2) installed on the EFFECT A section, remove the VS8F-2 of the EFFECT A section.

6. Replace the old battery with a new one.

NOTE

When turning the unit upside-down, get a bunch of newspapers or magazines, and place them under the four corners or at both ends to prevent damage to the buttons and controls. Also, you should try to orient the unit so no buttons or controls get damaged.



7. Reinstall the effect expansion board (VS8F-2) if removed in Step 5. Insert the plastic pin in the VS8F-2's hole, making sure the board is securely fastened in place.
8. Use the screws that you removed in step 2 to fasten the cover back in place. This completes the process of exchanging the lithium battery.
9. Connect the cables that you disconnected earlier.
10. Turn on the power, as described in "**Turning On the Power** (p. 19)."
11. Confirm that the message warning that the lithium battery is depleted does not appear in the display.
12. Set the current time (p. 22).

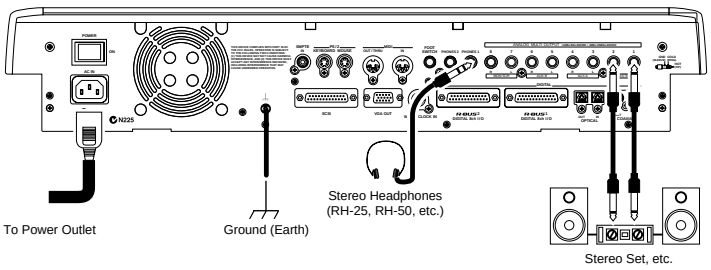
NOTE

A CR2032 lithium battery is used for the VS-2480 / 2480CD. This type of battery is available at an electric appliance, or similar store.

NOTE

The internal clock is powered by the lithium battery. Changing the lithium battery may cause this clock to stop, or may result in the current time being altered. Always make sure to newly set the correct time after the lithium battery has been replaced.

Basic Connections (Power Supply, Audio Devices and Headphones)



If you are using headphones, connect them to the rear panel PHONES 1 or PHONES 2 jack. The PHONES jack will output the same signal as the MONITOR jacks. When you purchase the VS-2480 / 2480CD, it will be set so that all analog audio signals are output from the MASTER jacks. The MONITOR jacks will output the same sound as the MASTER jacks.

For details refer to Owner's Manual "Working with the VS-2480 Output. (p. 287)"

NOTE

Be sure to ground the device to prevent any minor leakage of current from the VS-2480 / 2480CD, connectors, or other possible sources.

NOTE

To prevent malfunction and / or damage to speakers or other devices, always turn down the volume before making any connections.

NOTE

Do not connect a mouse to the keyboard connector. It becomes the cause of malfunction.

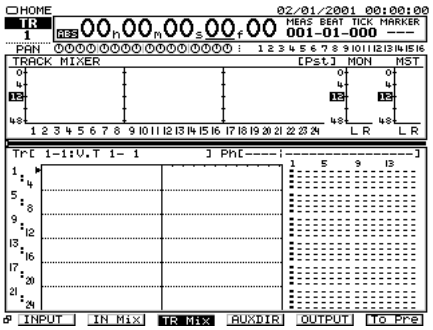
The VS-2480/2480CD Support the "Mouse" and the "VGA Monitor"

The VS-2480 / 2480CD has a "Mouse connector" that allows a mouse to be connected. If a mouse is connected, you will be able to use a mouse to operate the buttons and control knobs that appear in the display of the VS-2480 / 2480CD.
If a personal computer VGA monitor is connected to the "VGA connector," you can view your operations on a larger screen than the display built into the VS-2480 / 2480CD

Turning On the Power

1. The rear panel POWER switch turns on the power of the VS-2480 / 2480CD. Use the rear panel POWER switch to turn on the power of the VS-2480 / 2480CD. The current system version number will be displayed with the opening screen. Please wait.

2. When the VS-2480 / 2480CD starts up correctly, the following display (Home Condition screen) will appear.



3. Turn on the power of your audio system.

4. Raise the volume of your audio system to an appropriate level.
Always make sure to have the volume level turned down before switching on power. Even with the volume all the way down, you may still hear some sound when the power is switched on, but this is normal, and does not indicate a malfunction.

NOTE

Once the connections have been completed (p. 18), turn on power to your various devices in the order specified. By turning on devices in the wrong order, you risk causing malfunction and / or damage to speakers and other devices.

NOTE

When the power is turned on, the disk drive will be detected, and necessary data will be read. For this reason there will be an interval of time before operation can begin.

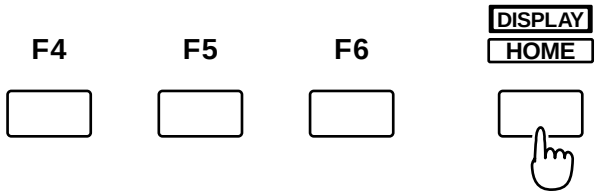
■ Adjusting the Display Contrast

The text or icons in the VS-2480/2480CD's display (Operation Display) may be difficult to read immediately after the unit is turned on or after it has been used for long periods, or depending on the environment in which the unit is used. If this occurs, rotate the CONTRAST knob located at the left side of the display to adjust the display contrast.

NOTE

Operating the CONTRAST knob will not affect the screen displayed by the VGA monitor connected to the VGA connector.

■ If You Do Not Understand the Display or Don't Know What to Do



If an unfamiliar display appears or if you do not know how you arrived at the current condition, press **[HOME (DISPLAY)]**. This will return you to the initial power-on screen, allowing you to re-do the procedure from the beginning.

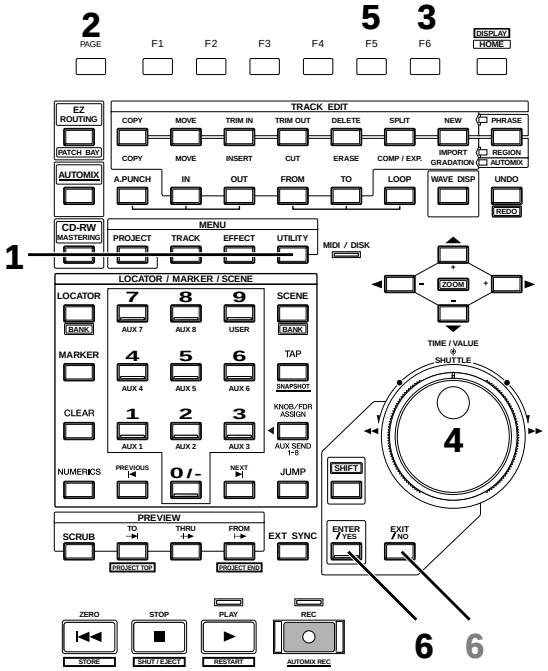
Mixer and Utility Parameters Initialize

You can restore the default parameter settings of a project. This is convenient when you have made many changes to the Input Mixer, the Track Mixer, the Master Block, as well as changes in the System Menu screens, and you want to quickly restore the VS-2480/2480CD to its default settings.

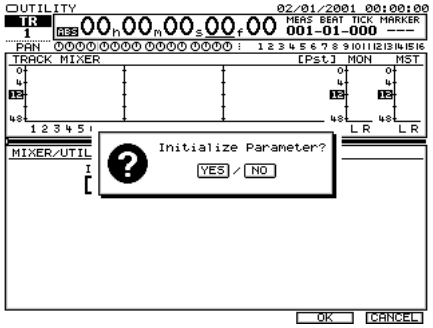
- If you attempt to perform an incorrect operation or if the specified operation cannot be executed, an error message will appear in the display. Please refer to "Error Messages" (Appendices p. 9) and take the appropriate action.
- If the results are not as described in the User Guide or Owner's Manual even though you have followed the specified steps, please refer to "Troubleshooting" (Appendices p. 5).
- If the information in "Troubleshooting" does not resolve the problem, contact a nearby Roland Service Center or authorized Roland Distributor.

NOTE

After initializing mixer and system settings, many settings will not be affected. Some of the settings that are not affected by Mixer and System Initialize include project, Scene, tempo map, and sync track data. Additionally, the IDE drive, SCSI ID, Scene Mode, Shift Lock, and Numerics Type settings are not changed as a result of Mixer/System Initialize.

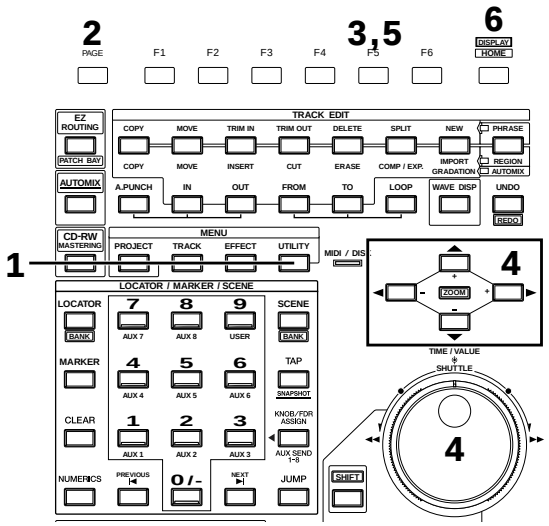


1. Press **[UTILITY]**. Utility Menu screen will appear.
2. Press **[PAGE]** several times until function tab “Page3” will be appeared at the front.
3. Press **[F6 (PrmIni)]**. MIXER / UTILITY Parameter Initialize screen will appear.
4. Use TIME / VALUE dial to select the parameter that you wish to initialize.
5. Press **[F5 (OK)]**.
6. “Initialize Parameter?” message will appear. If you wish to initialize, press **[ENTER/YES]**. If you wish to cancel the operation, press **[EXIT/NO]**.



Setting the Date and Time of the Internal Clock

The VS-2480/2480CD contains a clock. When you record a performance, a time stamp is added which indicates the date and time of the recording. This is a convenience that helps you keep track of the date or order in which recordings were made. After turning on the power for the first time after purchase, please use the following procedure to set the date and time of the internal clock.



1. Press **[UTILITY]**. Utility Menu screen will appear.
2. Press **[PAGE]** several times until function tab “Page3” will be appeared at the front.
3. Press **[F5 (DATE)]**.
4. Use **[▲][▼][◀][▶]** to move the cursor. Use TIME/VALUE dial to set each value.

Date Edit

Set the year, month, and day.

Date Format

Select how the date will be displayed. (The examples shown here are for February 1, 2001.)

mm/dd/yyyy: month/day/year (Example: 02/01/2001)
dd/mm/yyyy: day/month/year (Example: 01/02/2001)
yyyy/mm/dd: year/month/day (Example: 2001/02/01)
MMM. dd, ‘YY: month/day/year (Example: Feb. 01, ‘01)
dd MMM ‘YY: day/month/year (Example: 01 Feb ‘01)

Time Edit

Set the current time in 24-hour format.

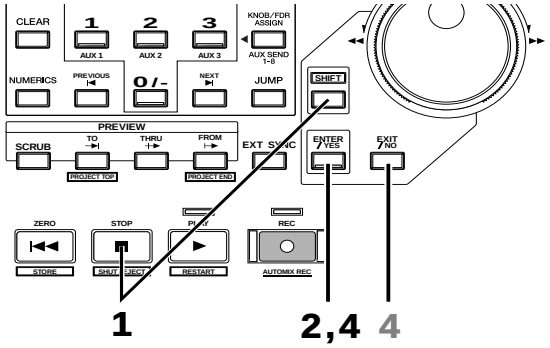
5. After setting the date the time, press **[F5 (SET)]** at the moment that the specified time arrives. The specified time will take effect at that moment.
6. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.

NOTE

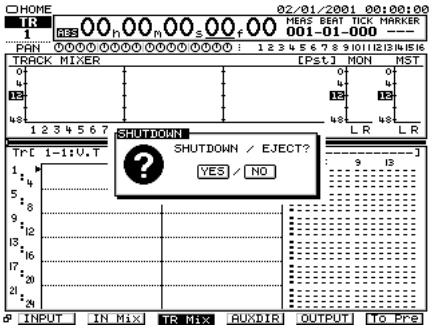
The internal clock operates on a battery. There is no need to perform this operation the second and subsequent times you turn on the VS-2480/2480CD. However, you may set the clock again if for some reason it should become inaccurate.

Turning Off the Power

If you simply turn off the power, not only can recorded content be lost, but the VS-2480 / 2480CD itself could malfunction. In order to safeguard the recorded performance and turn off the power safely, you must perform the Shutdown procedure when you are finished.

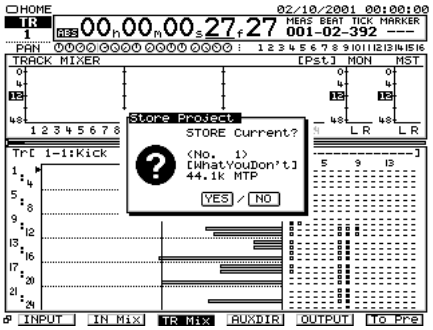


1. Hold **[SHIFT]** and press **[SHUT/EJECT (STOP)]**. "SHUTDOWN / EJECT?" message will appear.



2. Press **[ENTER/YES]**.

3. "STORE Current?" message will appear.



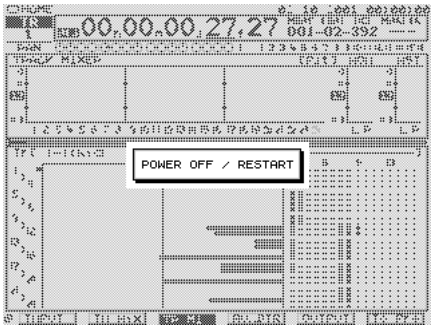
4. If you wish to store the currently selected project, press **[ENTER/YES]**. If you do not need to save it, press **[EXIT/NO]**. However, this display will not appear in the case of a demo performance or if the project is protected (i.e., cannot be edited).

5. When the shutdown procedure ends correctly, the display will indicate "POWER OFF / RESTART" (turn off the power / restart).

? Shutdown (Appendices p. 13)

? Current Project (Appendices p. 12)

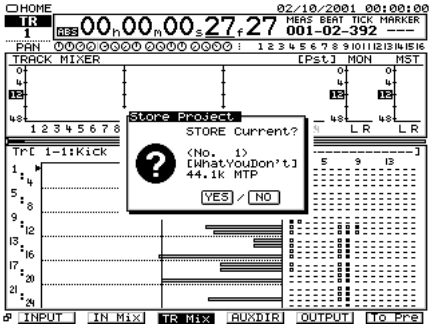
For details refer to Owner's manual Project and Drive Operations –"PROTECT (p. 75)".



6. Lower the volume of your audio equipment.
7. Turn off the power of your audio equipment.
8. Use the rear panel POWER switch to turn off the VS-2480/2480CD.

If "STORE Current?" is Displayed

When you execute various operations (including Shutdown), "STORE Current?" (Store the current project?) may be displayed. This message asks whether or not you wish to store the currently selected project to disk. If you wish to store the project before continuing with the operation, press **[ENTER/YES]**. If you do not need to save the project (i.e., if you wish to discard the recording and editing that was done up to that point, and revert to the condition in which the project was last saved), press **[EXIT/NO]**.



NOTE

After the power is turned off, the hard disk will continue rotating for a time due to inertia. During this time, applying physical shock to the VS-2480/2480CD may damage the disk. Before moving a VS-2480/2480CD that contains a hard disk, wait approximately a few seconds after turning off the power.

Listening to the Demo Performance

VS-2480

A demo performance needs to be Recovered from CD-ROM of a belonging. Also, the CD-R/RW drive such as the Roland CD Recorder is necessary to the Recover. For details please see the leaflet "To Recover the demo performance" of a belonging.

NOTE

If you are using a VS-2480 that does not have an internal CD-RW drive, you will need a separately sold CD-RW drive (Roland CD Recorder).

VS-2480CD

A number of demo performances were placed on the hard disk inside the VS-2480CD before it left the factory.

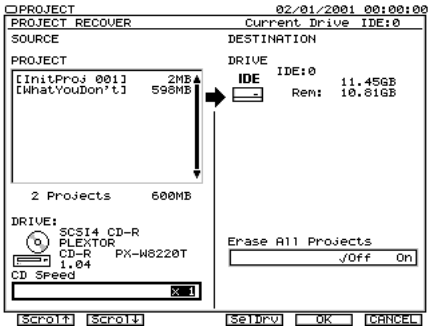
NOTE

Using these demo performance for any purpose other than personal enjoyment without permission of the copyright owner is prohibited by law.

VS-2480

How To Load a Demo Song (CD-R Recover)

1. Turn off the power supply of all apparatus.
2. **-1.** Connect the VS-2480 with the Roland CD Recorder according to "**Connecting the CD-R/RW Drive** (p. 82)"
   -2. Turn on the power of the Roland CD Recorder.
   -3. Insert a attached CD in the Roland CD Recorder.
3. Turn on the power of the VS-2480 (rear panel).
4. Press [PROJECT]. Project list appears.
5. Use the TIME/VALUE dial to move the cursor to the drive in which the demo CD-ROM is inserted.
6. Press [F6 (LIST)]. "Change Current Drive?" message appears.
7. Press [ENTER/YES]. "Store Current?" message appears.
8. If you wish to save the current project, press [ENTER/YES]. If not, press [EXIT/NO].
9. Use the TIME/VALUE dial to move the cursor to the demo project that you wish to recover.
10. Press Page 3 [F2 (Recovr)]. Project Recover screen appears.



- CD Speed
  Select the speed at which data will be read from a CD-R/RW disc. This parameter will be displayed only if a CD-R/RW drive is selected as the read source.
- Erase All Projects
  Off—if you want to add the project(s) you're recovering to the list of projects already on the destination drive.
  On—if you want to clear the drive so it contains only your recovered

NOTE

VS-2480

In the case of usage, an optional the Roland CD Recorder is required in VS-2480 which do not build in the CD-RW drive.

projects.

11. Select the recovery-destination. Press [F4 (SelDrv)].
Use the TIME / VALUE dial to move the cursor to the recovery-destination, and press [F5 (SELECT)]. If you change your mind about the drive selection, press [F6 (CANCEL)].

12. Press [F5 (OK)]. "Recover from SCSIx Sure?" (x is SCSI ID number) message is displayed.

13. Press [ENTER / YES]. Loading of data starts. If loading finishes, it will return to a home condition screen.

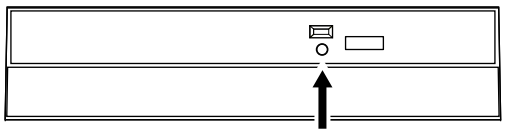
VS-2480CD

If a disc tray does not open

If the power is turned off with the disc still in the drive (such as due to a power failure), the disc tray cannot be opened by pressing the eject button. In this case, you can insert a piece of wire to force the tray open.

1. Turn off the power of the VS-2480CD.

2. Insert a thin object such as a wire into the emergency eject hole.
The disc tray will open.



Emergency Eject Hole

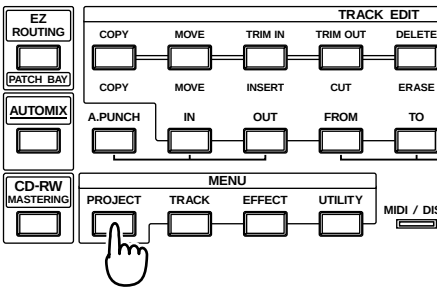
NOTE

VS-2480CD

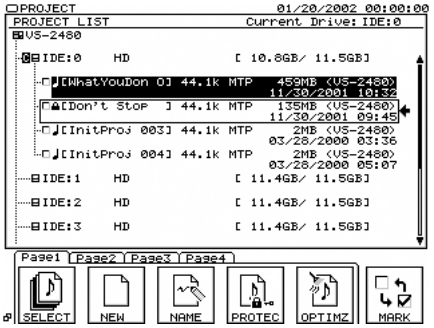
Make sure the VS-2480CD's power has been turned OFF before attempting to use the emergency eject hole. If you insert something while the power is on, the disc could get damaged, or unexpected problems may occur.

For Making the Preparations Which Listen to a Demo Performance (Project Select)

Select a demo song, when you listen to a demo performance. Use the following procedure to select a project.



1. Press [PROJECT]. Project List screen appears.
2. Use the TIME / VALUE dial to move the cursor to the project that you want to listen to the demo project.



3. Press [PAGE] several times until function tab “Page1” will display at the front.
4. Press [F1 (SELECT)]. “Select Project, Sure?” message appears.
5. Press [ENTER / YES]. “STORE Current?” message appears.
6. If you wish to save the current project, press [ENTER / YES]. If not, press [EXIT / NO].
7. The project will be selected, and you will return to the home condition display.

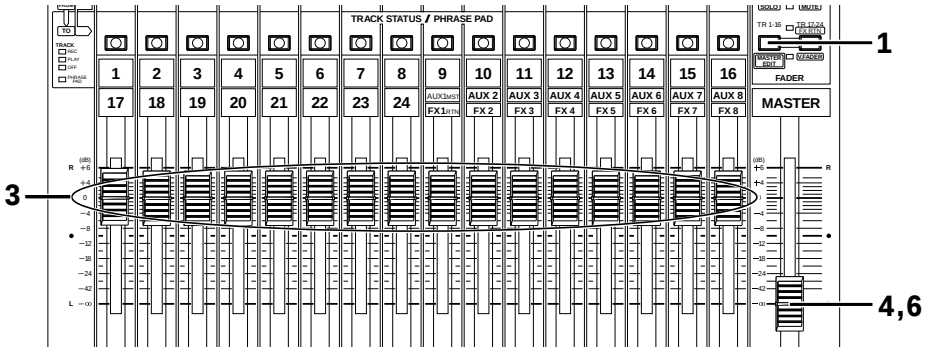
NOTE

Using these demo performance for any purpose other than personal enjoyment without permission of the copyright owner is prohibited by law.

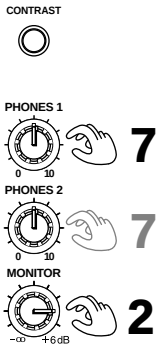
NOTE

The demo projects are protected so that their content cannot be modified (Project Protect) (Owner’s manual p. 48). They cannot be recorded, edited, or stored. If a demo performance or a project for which Project Protect is turned on has been selected, the “STORE Current?” message will not appear, so you can skip step 6.

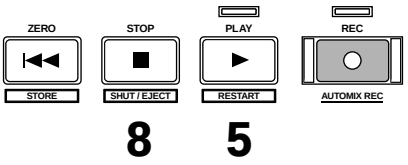
Playing Back the Demo Performance



1. Press **[TR 1-16 (MASTER EDIT)]**. **[TR 1-16 (MASTER EDIT)]** indicator will light, the channel fader will adjust to the Track Mixer level of channel 1–16.
2. Set the MONITOR knob to the 0 dB position (3 o'clock).
3. Set all channel faders to the 0 dB position.
4. Lower the master fader to the lowest position.
5. Press **[PLAY]**. The demo performance will play back, and the playback time, level meters, and the playback state of each track (play list) will begin moving.
6. Slowly raise the master fader to adjust the volume. The playback time, level masters, and playback status of each track (playlist) etc. will be displayed.



7. To adjust the volume of the headphones, rotate the PHONES 1 or the PHONES 2 knob.
8. When you finish demo performance, press **[STOP]**. The demo performance will stop.



■ Viewing the Level Meters.

1. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.

2. Press **[F3 (TR Mix)]**. At this time, the level meters will show the volume level of the playback tracks.

This switches the type of level meters displayed for the function buttons in home condition.

[F1 (INPUT)]	Levels being input to the input jacks
[F2 (IN Mix)]	Levels being input to the input mixer
[F3 (TR Mix)]	Track mixer levels
[F4 (AUXDIR)]	Signal levels flowing through AUX bus and direct path
[F5 (OUTPUT)]	Levels being output to the output jacks

NOTE

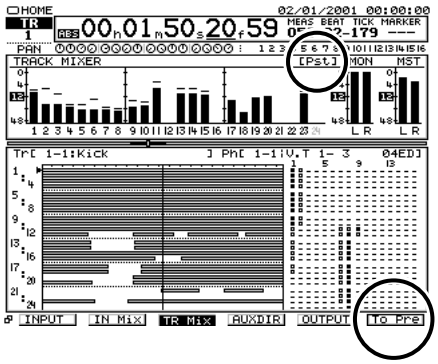
Using these demo performance for any purpose other than personal enjoyment without permission of the copyright owner is prohibited by law.

MEMO

If you set the Track Mixer 17–24, press **[TR 17-24/FX RTN (V.FADER)]**.

3. Press **[F6 (To Pre)]** to select pre level display, and press **[F6 (To Pst)]** once again to select post level display, alternately (except from the INPUT display or OUTPUT display).

The upper part of the level meter will indicate whether the current display is the pre level or the post level.
When pre level display, since this shows the volume levels before the signal passes through the channel faders, the level meter display will not change when you operate the channel faders.
When post level display, since this shows the volume levels after the signal passes through the channel faders, the level meter display will be affected when you operate the channel faders.



NOTE
The MONITOR level and MASTER level are always displayed as Post level.

For details refer to “Mixer Section Block Diagram” (accessory sheet).

■ Adjusting the Overall Volume

To adjust the overall volume of the performance, use the MASTER fader or the MONITOR knob.

■ Adjusting the Volume of an Individual Track

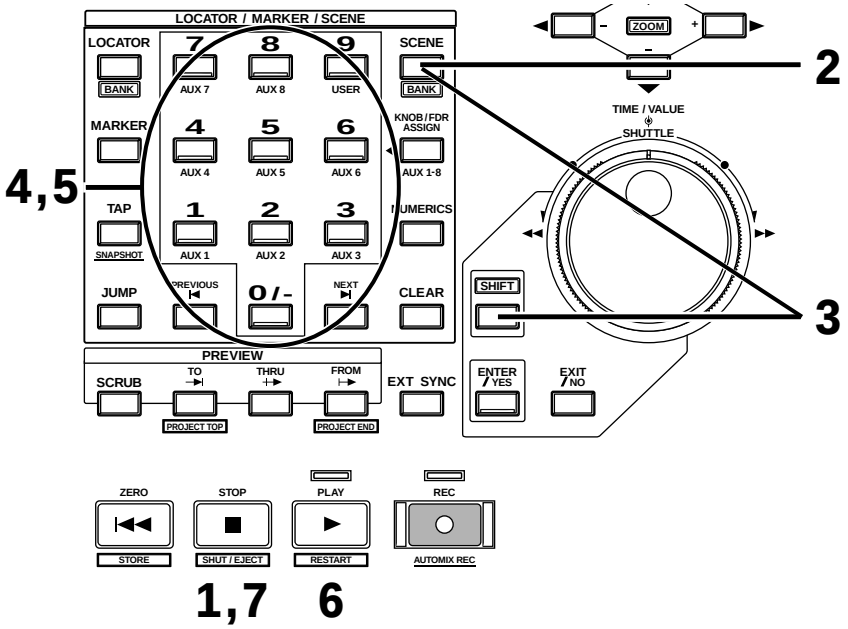
To adjust the volume of an individual track press **[TR 1-16 (MASTER EDIT)]**, so that the **[TR 1-16 (MASTER EDIT)]** indicator will light, and use the channel faders.
If you wish to adjust the track of channel 17–24, press **[TR 17-24 / FX RTN (V.FADER)]**, so that the **[TR 17-24 / FX RTN (V.FADER)]** indicator will light, and use the channel faders.

■ Adjusting the Headphone Volume

To adjust the volume of the headphones, use the PHONES 1 or the PHONES 2 knob.

Listening to the Demo Performance with a Different Arrangement (Scene)

Demo performance contain several completely different sets of settings for pan, playback track, and effects etc. These settings are collectively called a scene. By recalling different scenes or changing the scene while you playback a demo performance, you can hear the demo performance arranged in different ways. Here's how you can listen to various arrangements of the demo.



1. Press **[STOP]**.
2. Press **[SCENE]**. **[SCENE]** indicator will light.
3. Hold **[SHIFT]** and press **[BANK (SCENE)]**. The numerics buttons (**[0]**–**[9]**) will blink (current BANK number will light).
4. Press the numerics buttons (**[0]**–**[9]**) to select the scene bank. For this example, press **[0]**. Select the scene bank 0. Buttons **[0]**–**[9]** will light to indicate the scenes that are registered in scene bank 0.
5. Of the **[0]–[9]** buttons, press any that has a lighted indicator. The scene will be recalled, and the settings of the VS-2480 / 2480CD will change.
6. Press **[PLAY]**. The project will playback. Notice that the arrangement of the demo performance is different.
7. Press **[STOP]**. Playback will stop.
8. Repeat step 2–7 to hear and compare various arrangements of the demo performance.

For details refer to Owner's Manual "Using Digital Mixer."

MEMO

Since there are ten scene banks (0–9), and each of them holds ten scenes, numbered from 0 to 9, a total of 100 scenes can be registered.

MEMO

If **[SCENE]** indicator is already lighted, you may skip steps 2.

MEMO

If scene bank number 0 is already selected, you may skip steps 3–4.

MEMO

To delete a previously registered scene, press **[CLEAR]** and then a previously registered **[0]**–**[9]** button (i.e., one whose indicator is lit).

MEMO

Scenes are registered for numeric keys that are lit.

NOTE

Please stop playback before you switch scenes.

Making a Multi-Track Recording

This chapter explains the basic procedure for recording on the VS-2480 / 2480CD. Please follow through these steps to understand the procedure.

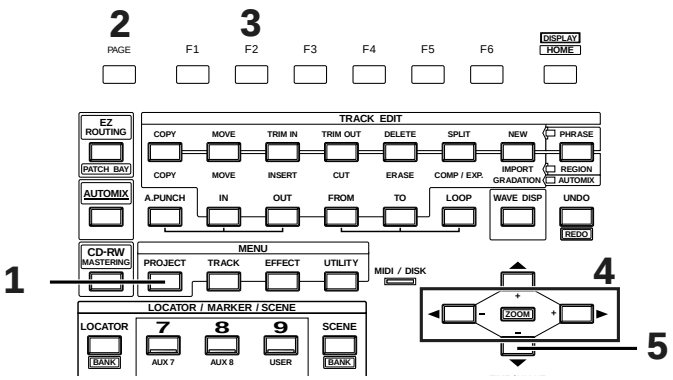
Creating a New Project (Project New)

Regarding Hard Disk Partition Size

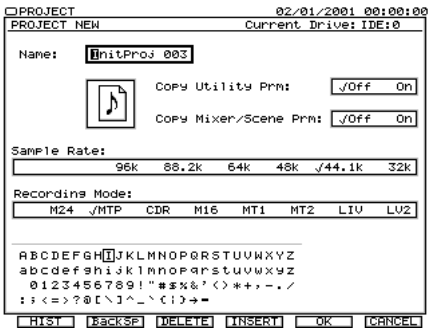
When purchased, the hard disk (HDP35 series) is divided (partitioned) into 10 GB units. You can also select 500 MB, 1 GB, or 2 GB disks that are compatible with the Roland VS series.

The changed partition size will take effect when you initialize (Initializing a drive (Owner's Manual p. 84)) the hard disk.

For example, if you change the partition size before you begin the procedures (multitrack recording) described in this chapter, you will be able to record for a longer time. However, all contents saved on the hard disk will be lost, and cannot be recovered. As necessary, please back up (Owner's Manual p. 80) the your works beforehand on a external removable disk or CD-RW disc.



1. Press **[PROJECT]**. Project Condition screen will appear.
2. Press **[PAGE]** several times until function tab "Page1" will display at the front.
3. Press **[F2 (NEW)]**.


PROJECT
02/01/2001 00:00:00
PROJECT NEW
Current Drive: IDE:0
Name:
InitProj 003
Copy Utility Prm:
√Off On
Copy Mixer/Scene Prm:
√Off On
Sample Rate:
96k 88.2k 64k 48k √44.1k 32k
Recording Mode:
M24 √MTP CDR M16 MT1 MT2 LIV LV2
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
0 1 2 3 4 5 6 7 8 9 ! " # $ % & ' ( ) * + , - . /
: ; < = > ? @ [\ ] ^ _ ` { | } → ←
HIST
BackSP
DELETE
INSERT
OK
CANCEL

4. Assign a name to the project. Use **[◄][►]** to highlight the character you wish to change, and use the TIME / VALUE dial to select a character.
5. Use **[▼]** to move the cursor to "Sample Rate."

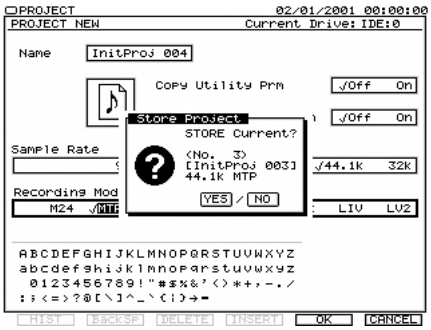
Zip drive (Appendices p. 14)

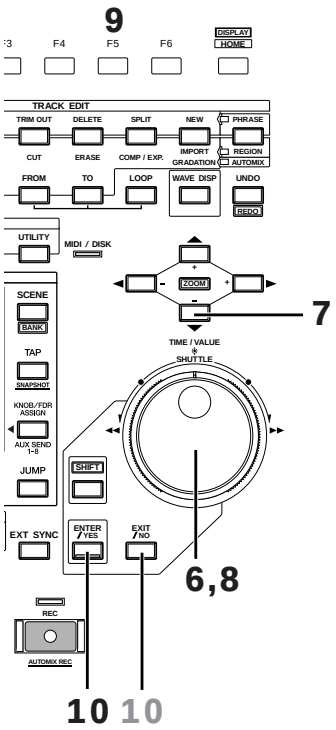
NOTE
Recording operations cannot be performed when the demo performance or protected project (Project Protect (Owner's Manual p. 75)) is selected. This is because the is protected so that its contents cannot be modified. In order to record, use the following procedure to prepare a new project. This is analogous to putting a new tape into a tape-type multi-track recorder.

NOTE
The HDP35 series cannot be used in the earlier VS models (VS-880 / 880EX / 890 / 1680 / 1880 / 1824 / 1824CD, and VSR-880).

About the number of tracks available for simultaneous recording and playback (Owner's Manual p. 14).

6. Use TIME / VALUE dial to select the Sample Rate (96kHz, 88.2kHz, 64kHz, 48kHz, 44.1kHz, 32kHz). Normally, choose “44.1k.”
7. Press **[▼]** to move the cursor to “Record Mode.”
8. Use TIME / VALUE dial to select the Recording Mode (M24, MTP, CDR, M16, MT1, MT2, LIV, LV2). Normally, choose “MTP.”
9. Press **[F5 (OK)]**. “STORE Current?” message will appear.





10. If you wish to store the current project, press **[ENTER/YES]**. If not, press **[EXIT/NO]**.
11. Home Condition screen will appear.

MEMO

When 96kHz, 88.2kHz or 64kHz is selected and M24, M16 or CDR is selected, simultaneous recording / playback is limited to eight tracks. For details refer to Owner’s Manual “About Recording Mode.” (Owner’s Manual p. 74)

NOTE

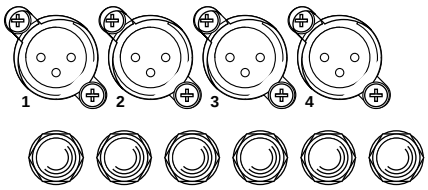
The demo performance are protected so that their contents cannot be modified (Project Protect, Owner’s Manual). They cannot be recorded, edited, or saved. If a demo performance is selected, the “STORE Current?” message will not appear, and step 10 will not be necessary.

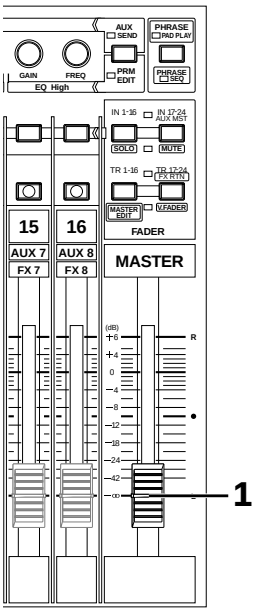
For details refer to “Creating a New Project (Project New).”

Connecting Microphones

Here we will explain how to connect two microphones and make a multi-track recording. One mic will record an acoustic guitar, and the other mic will record the vocal.

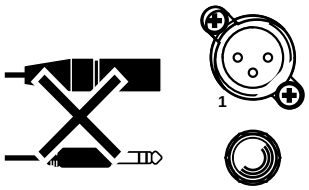
1. Lower the master fader of the VS-2480/2480CD to the minimum position.
2. Connect the microphones to the INPUT jacks. XLR jack mics can be connected to INPUT 1 through INPUT 8, and phone jack mics can be connected to INPUT 1–INPUT 16.





NOTE

Do not simultaneously use the XLR jack and phone jack of the same number.



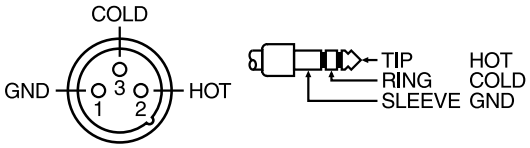
MEMO

Noise may be introduced through unused input jacks. Should you encounter this problem, try the following remedies.

- In the patchbay, disconnect assignments to the input mixer for any unused input jacks.
- Turn the SENS knob all the way toward the left, and press [PAD] inward.
- Set the input mixer level to -infinite dB.

■ Cautions When Connecting Microphones

The pin wiring configuration of XLR type connectors is as shown below (the VS-2480 / 2480CD side). Please verify the pin wiring configuration before you connect any device.



- Depending on the location of a microphone relative to your speakers, acoustic feedback (a whining or shrieking sound) may occur. If this occurs, take the following steps.

1. Point the microphone in a different direction
2. Move the microphone away from the speaker
3. Lower the volume

- The power of the VS-2480 / 2480CD must be turned off before you switch the phantom power on / off. If the phantom power is switched on / off when the VS-2480 / 2480CD is on, a loud noise will be output, which could damage your amp or speakers.
- Carefully read the owner's manual for the microphone you use, and leave the phantom power switched off unless you are connecting a condenser mic that requires a phantom power supply. If phantom power is supplied to a dynamic mic or audio playback device, malfunctions may result.

NOTE

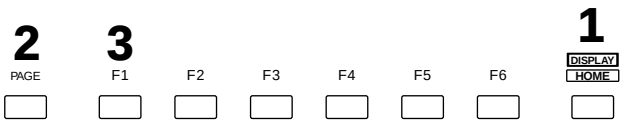
To prevent hazard or damage, ensure that only microphone cables and microphones designed to IEC-268-15A are connected.

French language
for Canadian Safety Standard

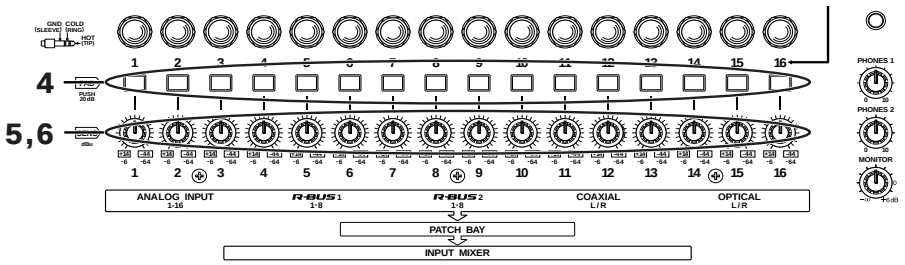
NOTE

Afin d'éviter tout risque ou dommage, ne brancher que des câbles de microphone et des microphones conformes à la norme IEC-268-15A.

Adjusting the Input Sensitivity



1. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.
2. Press **[PAGE]** several times until "INPUT" will be appeared at the [F1].
3. Press **[F1 (INPUT)]**. At this time, the level meters will show the volume level of the input source.



4. If a line device is connected, press **[PAD]** located below the ANALOG INPUT jack. This will apply a 20 dB attenuation to the input from the line device. If a mic is connected, press **[PAD]**
5. While singing or playing into the mic, gradually raise the SENS knob for the jack to which the mic is connected. For example if the mic is connected to INPUT 1, play your guitar or sing while you adjust the SENS 1 knob.
6. Verify that the level meter moves and that sound is output.

   To record with the best possible audio quality, use the SENS knob to adjust the level as high as possible so that the level meter moves in the range of -12– 0 dB.

MEMO

If the previously specified level is exceeded, the analog input peak indicator will light. The analog input peak indicator is displayed between the time code and level meters in the screen.

Connecting an Instrument Other than a Microphone

If you are connecting an electric guitar or electric bass directly, connect it to the GUITAR Hi-Z jack. In this case, you will generally set the INPUT 16 knob in the 9 o'clock region.

The ANALOG INPUT 16 jack and the GUITAR Hi-Z jack cannot be used simultaneously.

If the **[ON]** switch located at the right of the GUITAR Hi-Z jack is pressed in, the GUITAR Hi-Z jack will be given priority.

If you wish to use the ANALOG INPUT 16 jack, press **[ON]** so it is released.

MEMO

For details on Phantom power, refer to Owner's Manual "System Parameter screen." (Owner's Manual p. 118)

MEMO

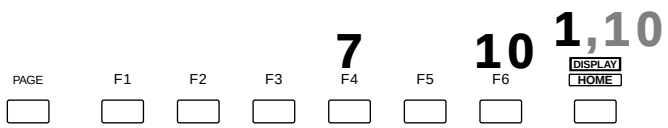
If **[PAD]** is pressed in, the SENS knob has a range of -44– +14 dBu. If **[PAD]** is in the out position, the SENS knob has a range of -64– -6 dBu.

?

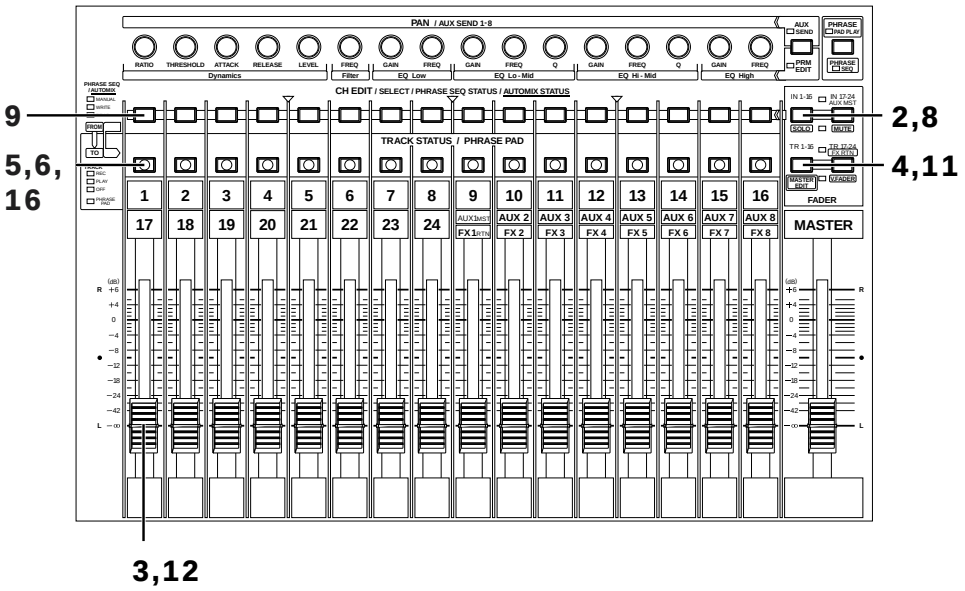
GUITER Hi-Z (Appendices p. 12)

Recording On a Track

This section explains the procedure for using a mic connected to the ANALOG INPUT 1 jack to record an acoustic guitar performance to track 1.



1. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.



2. Press **[IN 1-16 (SOLO)]**. **[IN 1-16 (SOLO)]** indicator will light, and channel fader will adjust the Input Mixer channel 1–16.

3. Raise and lower channel fader 1, and verify that the volume changes. The input channel fader is used to make fine adjustments to the recording level. In order to record with the optimal audio quality, you should normally set the fader at 0 dB.

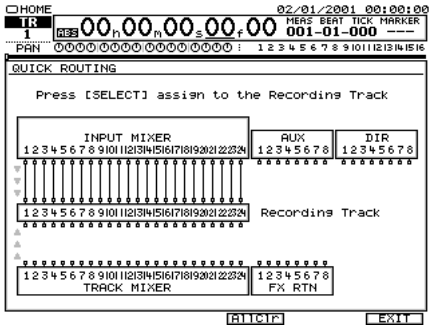
4. Press **[TR 1-16 (MASTER EDIT)]**. **[TR 1-16 (MASTER EDIT)]** indicator will light, and channel fader will adjust the Track Mixer channel 1–16.

5. Hold **[REC]** and press **[TRACK STATUS]** of the track that you wish to record. For this example, hold **[REC]** and press the track 1 **[TRACK STATUS]**. The track 1 **[TRACK STATUS]** will blink red and track 1 will be recording track.

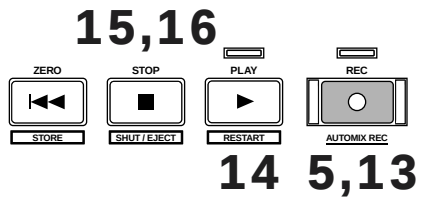
6. Hold **[TRACK STATUS]** of the track that you wish to record. Quick Routing screen will appear. For this example, hold Track Mixer channel 1 **[TRACK STATUS]**.

MEMO

Time is displayed at present on the right of the Home Condition screen in the initial state. The display can also change in recording possible remainder time. Consider these numbers as approximate values. In addition to the remaining time, the display can also be switched to remaining capacity (MB units, percentage (%) or event unit).



7. Press **[F4 (AllClr)]**.
8. Press **[IN 1-16 (SOLO)]**. **[IN 1-16 (SOLO)]** indicator will light, and channel fader will adjust the Input Mixer channel 1–16.
9. Specify the recorded on which source. Press **[SELECT]** of the source channel that you wish to record. For this example, Press Input Mixer Channel 1 **[SELECT]**.
10. If routing operation is finished, press **[F6 (EXIT)]** or **[HOME (DISPLAY)]**.
11. Press **[TR 1-16 (MASTER EDIT)]**. **[TR 1-16 (MASTER EDIT)]** indicator will light, channel fader will adjust the Track Mixer channel level 1–16.
12. Raise and lower the channel fader 1 and verify that the volume changes. The Track Mixer channel fader is used for monitoring. It does not affect the recording level. You can record even if you hear no sound. Adjust the fader to a comfortable level for monitoring.
13. Press **[REC]**. **[REC]** indicator will blink red.



14. Press **[PLAY]**. **[PLAY]** indicator will light green, and recording will begin.
15. When you finish the recording, press **[STOP]**.
16. Press track 1 **[TRACK STATUS]** several times until light green, or hold **[STOP]** and press track 1 **[TRACK STATUS]**.

MEMO

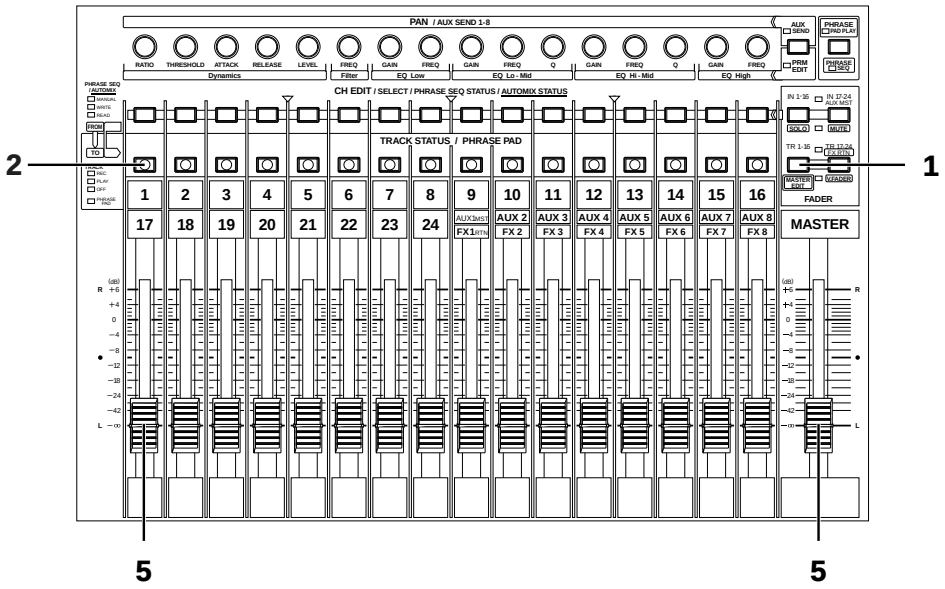
If you wish to assign the other source to the recording track, repeat press **[SELECT]** that you wish to record the source.

MEMO

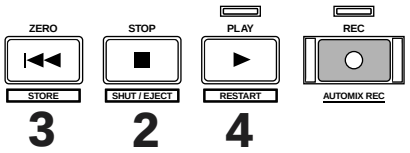
In this case that it records to other tracks the [TRACK STATUS] is pushed.

Playing Back the Performance You Recorded

Now let's playback the performance that was recorded on track 1.



1. Press **[TR 1-16 (MASTER EDIT)]**. **[TR 1-16 (MASTER EDIT)]** indicator will light, channel fader will adjust the Track Mixer channel level 1–16.
2. Hold **[STOP]** and press Track Mixer 1 **[TRACK STATUS]**. Track Mixer 1 will be playback track, and **[TRACK STATUS]** will light green.



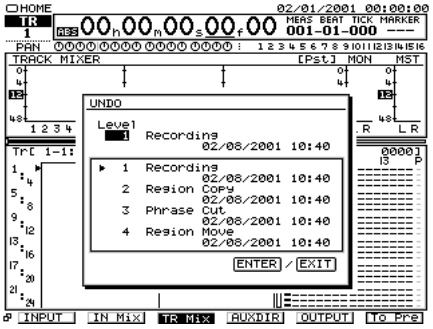
3. Press **[ZERO]**. You will return to the beginning of the current project.
4. Press **[PLAY]**. The project will playback.
5. Use channel fader 1 and the master fader to adjust the volume to a comfortable level.

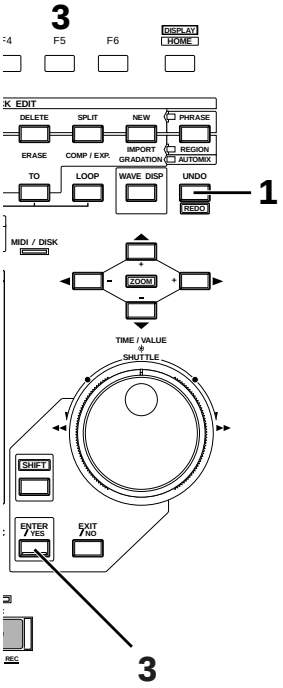
Canceling the Recording

■ Canceling a Record Result (Undo)

If the recording level was too low, if you made a mistake in your performance, or if for any other reason you wish to re-do the recording, you can use the following procedure to cancel the contents of the recording. This is called the Undo function. Undo the previously performed editing operation and return to the prior state.

1. Press **[UNDO (REDO)]**.
2. "UNDO Level" will appear. Use TIME / VALUE dial to specify how many steps you wish to return.



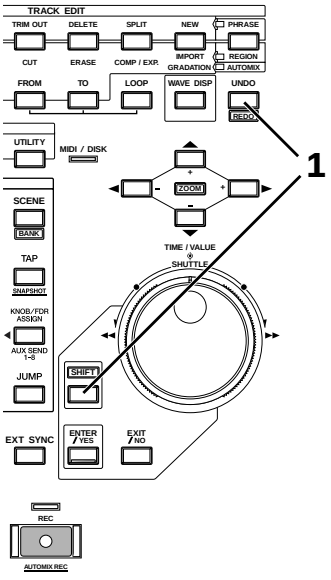


3. Press **[ENTER/YES]**. **[UNDO (REDO)]** will light, Undo operation has been executed successfully.

■ Canceling the Undo (Redo)

You can also cancel the previously-executed Undo to return to the original state, and this is called the Redo function.
Note, for example, that if you've carried out Undo two times in a row, by using Redo, you're returned to the state in effect immediately before you ran Undo for the second time.

1. Make sure that **[UNDO (REDO)]** indicator is lit. Then hold **[SHIFT]** and press **[REDO (UNDO)]**. "Cancel the last UNDO?" message will appear.
2. The previously executed Undo will be cancelled, and the data will return to the prior state. Check that the editing operation prior to the Undo has returned to the undo level.



NOTE

When you execute Undo, the recorded data will appear to have disappeared. However, the data that is no longer played back will not be erased from the hard disk until you save that project (p. 49). For this reason, executing Undo will not increase the available recording time.

NOTE

You cannot canceling the Mixer settings and Effect settings. At this time, register to the scene. (p. 30)

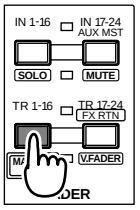
NOTE

Redo allows you to change your mind about your most recent Undo, allowing you to go back to having the change put into effect, thus "redoing" it.

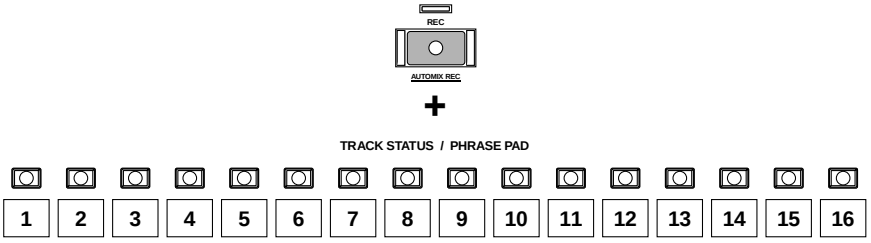
■ Re-Recording a Specified Portion (Punch-In/Punch-Out)

When you listen to a performance that you recorded, you may notice that even though the overall performance is good, a mistake was made or the wrong lyrics were sung in just one location. In such cases you can use the following procedure to re-record just the portion in which the mistake occurred. This is called Punch-in / Punch-out.

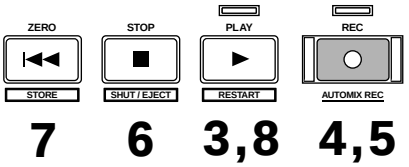
1. Press **[TR 1-16 (MASTER EDIT)]**. **[TR 1-16 (MASTER EDIT)]** indicator will light, **[TRACK STATUS]** will indicate the Track Mixer status of channel 1–16.



2. Hold **[REC]** and press **[TRACK STATUS]** of the track that you wish to re-record. **[TRACK STATUS]** indicator will blink red (Record-Ready).



3. Press **[PLAY]**. The project will playback.



Punch-In Recording

When you perform punch-in recording, you must make sure that the previously-recorded track and the source now being recorded are at the same volume. During playback, you can alternately monitor the track and the source by pressing the **[TRACK STATUS]** of the track that you wish to re-record (**[TRACK STATUS]** indicator will alternately blink red and red / orange). Compare the sounds to make sure that there is no difference in level between them. If necessary, use the INPUT knob to adjust the input sensitivity (p. 35) or the input channel fader to adjust the recording level (p. 36).

4. At the point where you wish to begin re-recording, press **[REC]**. **[REC]** and **[TRACK STATUS]** will light red, indicating that recording is occurring. Begin playing or singing.
5. When you finish playing or singing, press **[REC]** once again. **[REC]** will go dark, indicating that you have returned to playback mode.
6. Press **[STOP]**. The project playback will stop.
7. Press **[ZERO]**. You will return to the beginning of the project.
8. Press **[PLAY]**. The project will playback.

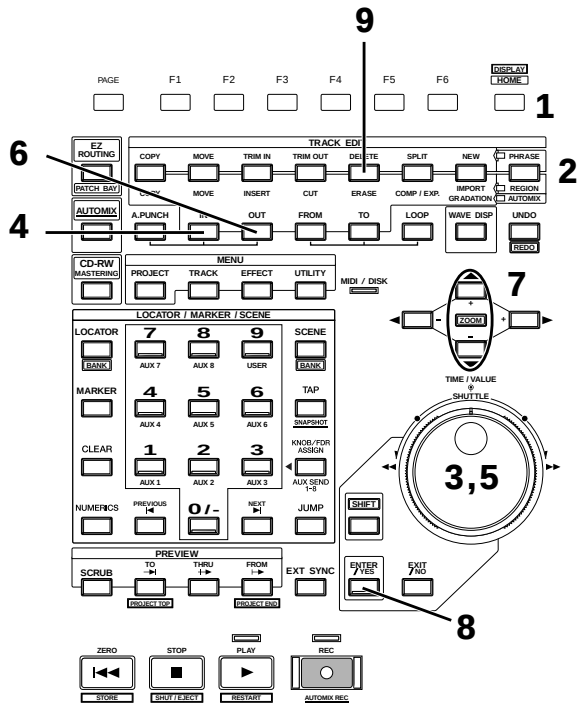
NOTE

Although it will appear that the audio data is overwritten by this process, the data that is no longer played back is not actually erased from the hard disk. This means that the available recording time will decrease when you punch-in / punch-out. If you wish to increase the available recording time, please read “Deleting an Erased Recording from the Disk (Project Optimize).”

9. Use the channel faders and master fader to adjust the volume to a comfortable level.

■ Erasing Just a Portion of a Recording (Track Erase)

If instead of re-recording the portion where a mistake was made, you simply wish to erase the mistake, use the following procedure. The result will sound the same as recording silence over the unwanted section, without using additional disk space.



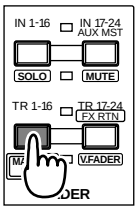
1. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.
2. Press **[PHRASE / REGION]** several times until indicator will light red. The Track Edit mode will change to “REGION.”
3. Use the TIME / VALUE dial or the SHUTTLE ring to move to the starting time of the region you wish to erase.
4. Press **[IN]**. This finalizes the starting time of the region to be erased.
5. Use the TIME / VALUE dial or the SHUTTLE ring to move to the ending time of the region you wish to erase.
6. Press **[OUT]**. This finalizes the ending time of the region to be erased.
7. Use **[▲][▼]** to move the cursor in playlist, select the track of the you wish to erase.
8. Press **[ENTER/YES]**.
9. Press **[ERASE]** in TRACK EDIT area. Track Erase will be performed from the IN time to the OUT time.
10. If you wish to erase of other tracks, repeat Steps 3–9.

MEMO

You can erase from the Track Condition screen.

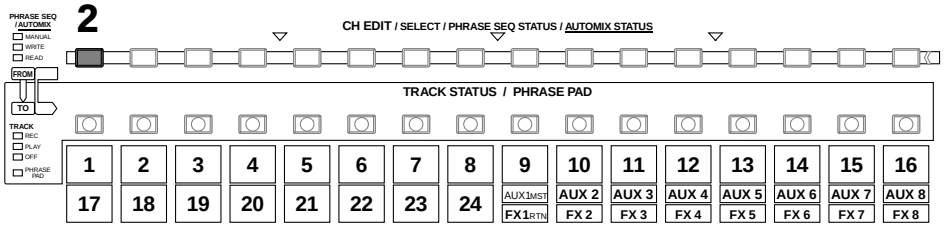
Recording On a V.Track

The VS-2480/2480CD has 24 tracks, and each of these tracks has 16 supplementary tracks called V.Tracks. By using these V.Tracks you can record up to 384 (24 x 16) tracks of audio.
The following example shows how to record a performance on V.Track 2 of track 1.



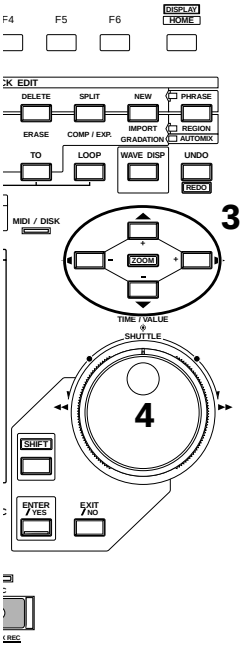
1. Press **[TR 1-16 (MASTER EDIT)]**.
[TR 1-16 (MASTER EDIT)] indicator will light, **[CH EDIT]** will be the Track Mixer channel edit buttons for channels 1–16.

2. Press Track Mixer channel 1 **[CH EDIT]**. Mixer Condition screen will appear.


2
CH EDIT / SELECT / PHRASE SEQ STATUS / AUTOMIX STATUS
TRACK STATUS / PHRASE PAD
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 AUX1MST FX1RTN AUX 2 FX 2 AUX 3 FX 3 AUX 4 FX 4 AUX 5 FX 5 AUX 6 FX 6 AUX 7 FX 7 AUX 8 FX 8

3. Use **[▲][▼][◄][►]** to move the cursor to the "V.Trk."

4. Use TIME/VALUE dial to change the V.Track. For this example, select "2." As described in "**Recording On a Track** (p. 36)," record your performance and listen to it.

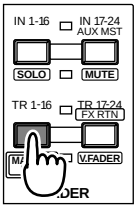


MEMO

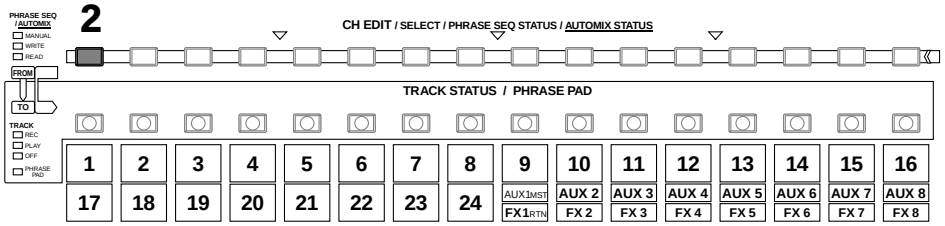
If the cursor is located at "V.Trk," press **[ENTER/YES]** to display the V.Track level. You can check the level at which each V.Track was recorded.

Comparing the Recorded content of Two V.Tracks

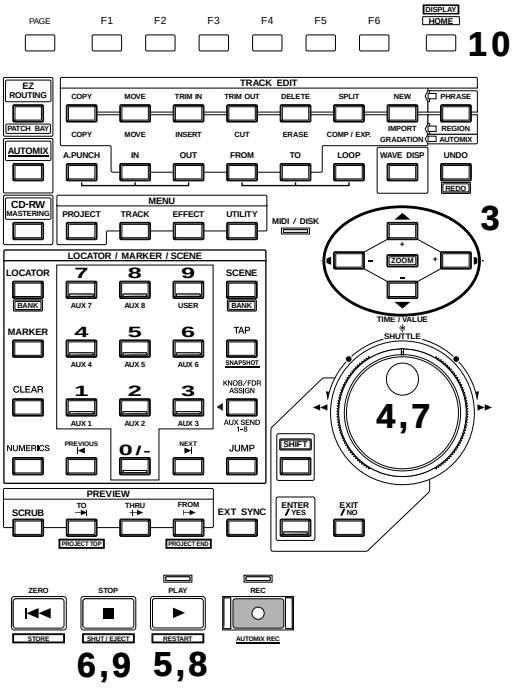
If you have been following the procedures in the previous examples, V.Tracks 1 and 2 of track 1 contain recorded performances. Here's how you can compare the performances of the two V.Tracks.



1. Press **[TR 1-16 (MASTER EDIT)]**.
   [TR 1-16 (MASTER EDIT)] indicator will light, **[CH EDIT]** will be the Channel Edit button of the Track Mixer channel 1–16. The channel fader will adjust the Track Mixer levels for channel 1–16.
2. Press **[CH EDIT]**. Mixer Condition screen will appear.


2
CH EDIT / SELECT / PHRASE SEQ STATUS / AUTOMIX STATUS
TRACK STATUS / PHRASE PAD
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 AUX1MST FX1RTN AUX 2 FX 2 AUX 3 FX 3 AUX 4 FX 4 AUX 5 FX 5 AUX 6 FX 6 AUX 7 FX 7 AUX 8 FX 8

3. Use **[▲][▼][◀][▶]** to move the "V.Trk."
4. Use TIME / VALUE dial to select the V.Track of the you wish to playback.
5. Press **[PLAY]**. The project will playback.
6. Press **[STOP]**.
7. Use TIME / VALUE dial to change the V.Track.
8. Press **[PLAY]**. Notice that a different performance is played back.
9. Press **[STOP]**.
10. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.



NOTE

It is not possible to change V.Tracks while the project is playing.

MEMO

If the cursor is located at "V.Trk," press **[ENTER/YES]** to display the V.Track level. You can check the level at which each V.Track was recorded.

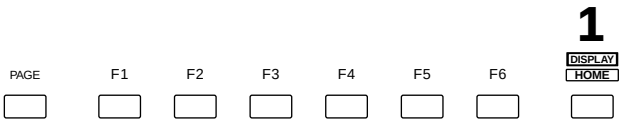
Recording On Other Tracks (Overdubbing)

The VS-2480/2480CD allows you to record new performances on other tracks while you listen to the playback of previously recorded tracks. This process is called Overdubbing.

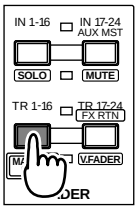
In the following example we will explain how to use a mic connected to the INPUT 2 jack to record a vocal on track 3 while you listen to the acoustic guitar performance that you recorded earlier on track 1.

As described in "**Adjusting the Input Sensitivity** (p. 35)," adjust the input sensitivity of the mic connected to the INPUT 2 jack before you begin.

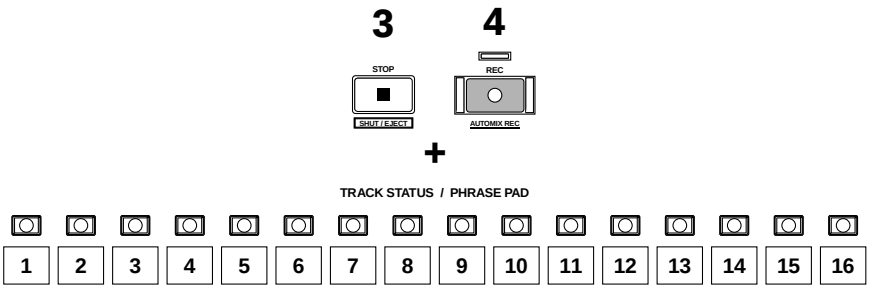
1. Press **[HOME (DISPLAY)]**.



2. Press **[TR 1-16 (MASTER EDIT)]**.
[TR 1-16 (MASTER EDIT)] indicator will light, channel fader will adjust the Track Mixer channel level 1–16.



3. Hold **[STOP]** and press **[TRACK STATUS]** of the track that you wish playback. For this example, hold **[STOP]** and press Track Mixer channel 1 **[TRACK STATUS]**. The track 1 will be playback track, and **[TRACK STATUS]** will light green.



4. Hold **[REC]** and press **[TRACK STATUS]** of the track that you wish to record. For this example, hold **[REC]** and press Track Mixer channel 3 **[TRACK STATUS]**. The track 3 will be recording track, and **[TRACK STATUS]** will blink red.

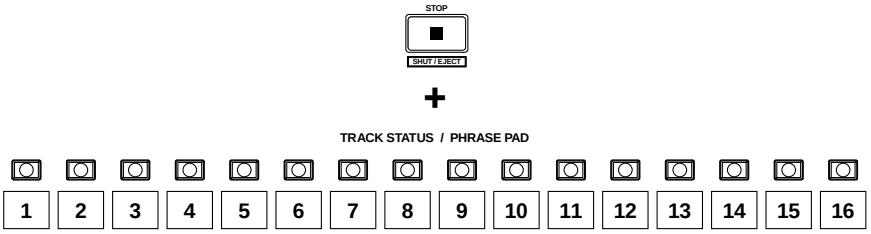
5. Assign the source which you wish to record, following the procedure described in "Recording a Track" step 5–7 (p. 36). For this example, assign the Input Mixer channel 2 to Track Mixer channel 3.

6. Adjust the input sensitivity and recording level of the ANALOG INPUT jack 2, following the procedure described in **Adjusting the Input Sensitivity** (p. 35)."

7. Raise and lower channel fader 3, verify that the volume changes. The Track Mixer channel fader is used for monitoring. It does not affect the recording level. You can record even if you hear no sound. Adjust the fader to a comfortable level for monitoring.

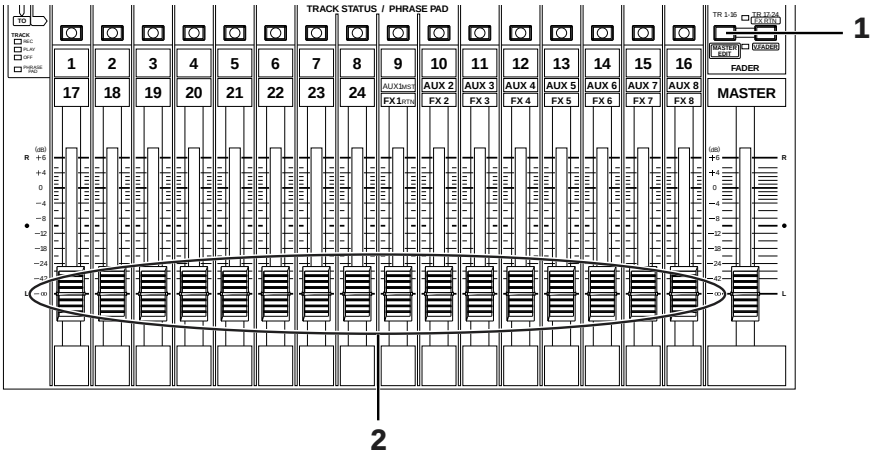
8. Press **[REC]**. **[REC]** indicator will blink red.
9. Press **[PLAY]**. **[PLAY]** indicator will light green, recording will begin.

10. When you finish recording, press **[STOP]**.
11. Press **[TRACK STATUS]** several times until **[TRACK STATUS]** indicator will light green, or hold **[STOP]** and press **[TRACK STATUS]**.



Playing Back Two or More Tracks

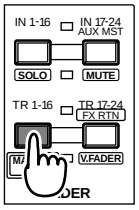
■ Adjust the Volume Balance of the Tracks



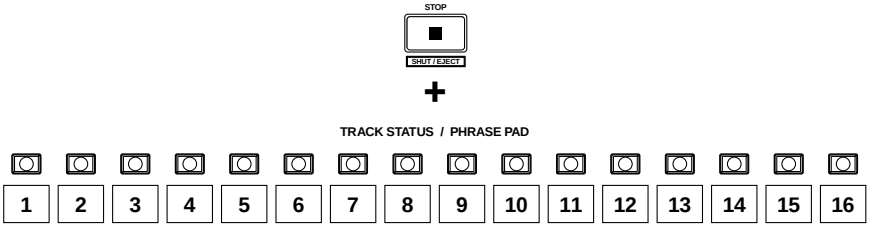
1. Press **[TR 1-16 (MASTER EDIT)]**. **[TR 1-16 (MASTER EDIT)]** indicator will light, channel fader will adjust the Track Mixer channel level 1–16.
2. Use the channel fader of each track to adjust the volume balance of the tracks.

■ Adjusting the Stereo Position of Each Track

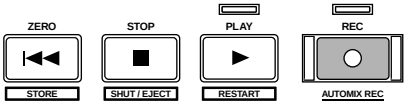
If you wish to adjust the stereo position (pan) of each track, use the following procedure.



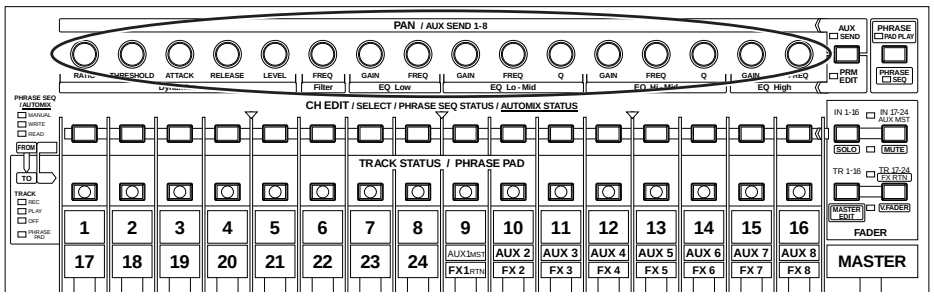
1. Press **[TR 1-16 (MASTER EDIT)]**. **[TR 1-16 (MASTER EDIT)]** indicator will light, **[TRACK STATUS]** will display the status of the Track Mixer channel 1–16.
2. Hold **[STOP]** and press **[TRACK STATUS]** of the track that you with to adjust the pan. **[TRACK STATUS]** indicator will light green, and it track will be the playback track.



3. Press **[PLAY]**. The project will playback.



4

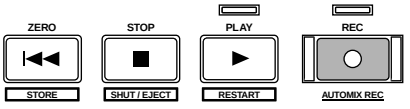

PAN / AUX SEND 1-8
CH EDIT / SELECT / PHRASE SEQ STATUS / AUTOMIX STATUS
TRACK STATUS / PHRASE PAD
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24
AUX 1 AUX 2 AUX 3 AUX 4 AUX 5 AUX 6 AUX 7 AUX 8
FX 1 FX 2 FX 3 FX 4 FX 5 FX 6 FX 7 FX 8
FADER
MASTER

4. Turn the PAN knob of the track whose pan you wish to adjust. The display will switch to the fader pan view, allowing you to see the pan values.
5. When you finish playback, press **[STOP]**.

■ Use the Equalizer To Adjusting the Tone of Each Track

A selectable 4-band parametric equalizer is provided for each channel. Here's how to use the equalizer to adjust the tone of each track.
Try using the equalizer to adjust the sound quality of each track.

1. Press **[PLAY]**. The project will playback.



MEMO
If you set the Track Mixer 17–24, press **[TR 17-24/FX RTN(V.FADER)]**.

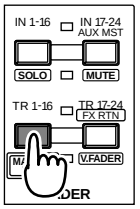
MEMO
When the **[PRM EDIT]** indicator is light red, these knobs will be the PRM EDIT (Dynamics, Filter and EQ) knobs.

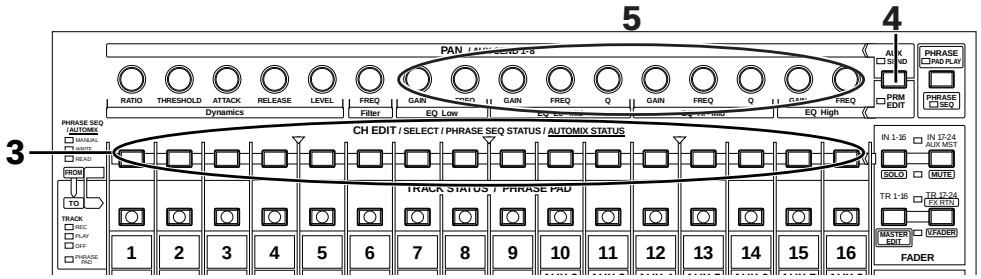
MEMO
If you hold down **[SHIFT]** while you turn a channel's PAN knob, you can adjust one step each.

MEMO
You can adjust from Channel Edit screen.

2. Press **[TR 1-16 (MASTER EDIT)]**. **[TR 1-16 (MASTER EDIT)]** indicator will light, **[CH EDIT]** will be the Channel Edit button of the Track Mixer channel 1–16.

3. Press **[CH EDIT]** of the track that you wish to adjust the equalizer. **[CH EDIT]** indicator will light.





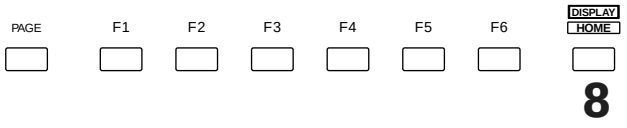
4. Press **[PRM EDIT]. [PRM EDIT]** indicator will light red.

5. Turn the "Freq," "Gain," and "Q" knobs for "EQ Low"–"EQ High" to adjust the tonal character.

6. If you wish to adjust of other tracks, repeat Steps 3–5.

7. When you finish playback, press **[STOP]**.The project playback will stop.

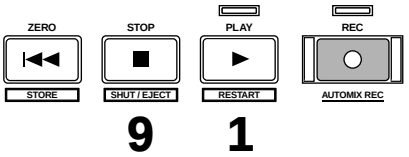
8. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.



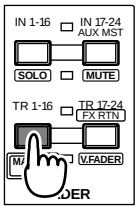
■ Use the Filter To Adjusting the Tone of Each Track

The channels are provided with filters. There are four kinds of filters; you can use any one of these to adjust the tonal quality of the sound.
Try using the filter to adjust the sound quality of each track.

1. Press **[PLAY]**. The project will playback.



2. Press **[TR 1-16 (MASTER EDIT)]**. **[TR 1-16 (MASTER EDIT)]** indicator will light, **[CH EDIT]** will be the Channel Edit button of the Track Mixer channel 1–16.



MEMO

If you set the Track Mixer 17–24, press **[TR 17-24/FX RTN (V.FADER)]**.

MEMO

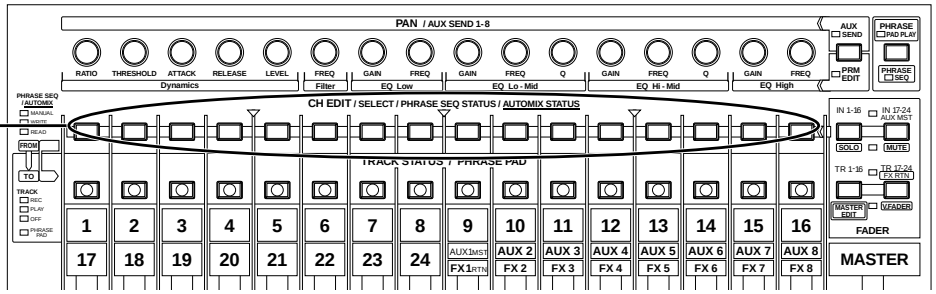
When the **[PRM EDIT]** indicator is dark, these knobs will be the PAN knobs.

MEMO

The "Q" parameter can be adjusted only for "EQ Lo-Mid" and "EQ Hi-Mid." You can adjust the EQ parameters from the Channel Edit screen.

NOTE

When the equalizer switch is turned off, no change is made in the tonal quality even if a parameter is changed. If you do want to change the tonal quality, you must first turn the equalizer switch on, either in the Parameter Edit screen or the Channel Edit screen.



3. Press **[CH EDIT]** of the track that you wish to adjust the equalizer. **[CH EDIT]** indicator will light.

4. Press **[PAGE]** several times until function tab “Page1” will be appeared at the front.

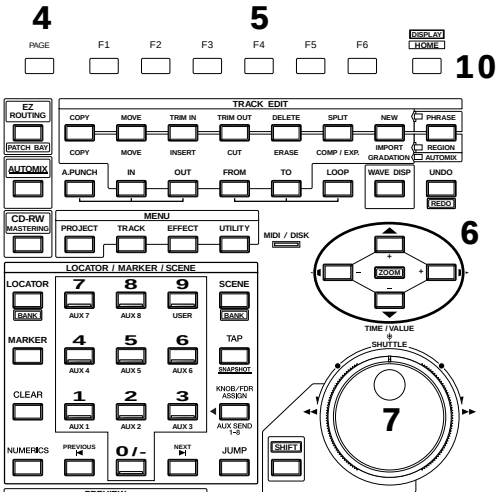
5. Press **[F4 (EQ)]**.

6. Use **[▲][▼][◄][►]** to move the cursor to the “Type”(p. 48) or “Frequency.”

7. Use TIME / VALUE dial to adjust the parameters.

8. If you wish to adjust of other tracks, repeat Steps 2–5.

9. When you finish playback, press **[STOP]**.The project playback will stop.



10. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.

About the Filter Type

Filter Type	
LPF (Low Pass Filter)	This passes only the sound below the specified frequency.
BPF (Band Pass Filter)	This passes only the sound in the region of the specified frequency.
BEF (Band Eliminate Filter)	This cut off only the sound in the region of the specified frequency. BEF is also known as “Notch Filter.”
HPF (High Pass Filter)	This passes only the sound more than the specified frequency.

MEMO

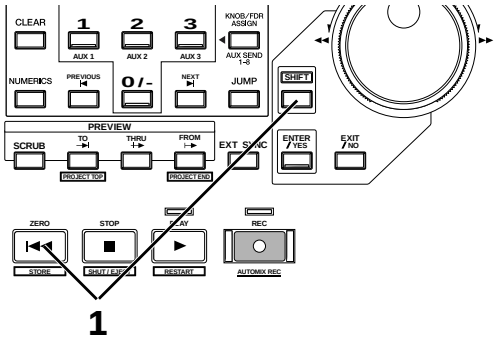
If you set the Track Mixer 17–24, press **[TR 17-24/FX RTN (V.FADER)]**.

NOTE

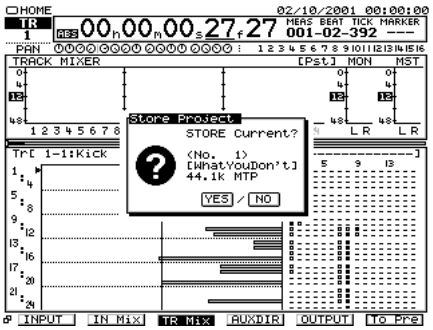
When the equalizer switch is turned off, no change is made in the tonal quality even if a parameter is changed. If you do want to change the tonal quality, you must first turn the equalizer switch on, either in the Parameter Edit screen or the Channel Edit screen.

Saving Your Performance (Project Store)

The performance that you recorded will be lost if you simply turn off the power. It will also be lost if the power should be turned off by accident or power failure. Data that was lost in this way cannot be recovered.
To avoid such accidents, use the following procedure to save your project to disk. When handling important project data or when you have been using the VS-2480 / 2480CD for an extended period, we recommend that you save your data frequently.



1. Hold **[SHIFT]** and press **[STORE (ZERO)]**.
2. "STORE Current?" message will appear. If you are satisfied with the recording, press **[ENTER/YES]**. If you decide not to store the project, press **[EXIT/NO]**.



Using Effects

If VS8F-2 effect expansion boards are installed, you can use up to eight stereo effects without needing to connect any external devices to the VS-2480 / 2480CD. Here's how to use effects when VS8F-2s have been installed. The VS-2480 / 2480CD comes equipped with one internal effects expansion board (containing two effects processors).

MEMO

For details on installing a VS8F-2, refer to "**Installing Effect Expansion Boards** (p. 11)."

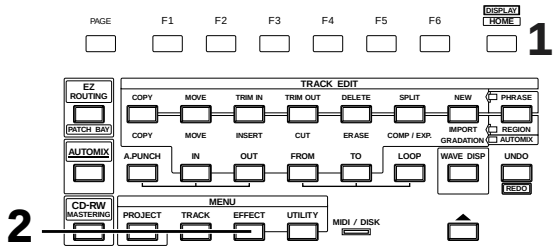
Selecting the effect patch you wish to use

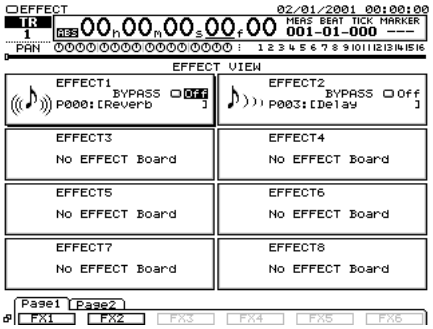
The VS8F-2 contains numerous effects. You can process the sound by selecting a combination of effects (a patch) appropriate for your situation. Here we will select a reverb patch.

If the Display Indicates "No EFFECT Board"

A VS8F-2 has not been installed. Internal effects cannot be used.
If this message appears even though a VS8F-2 has been installed, the VS8F-2 has not been recognized correctly. Turn off the power as described in "**Turning Off the Power** (p. 23)," and re-install the effect expansion board correctly.

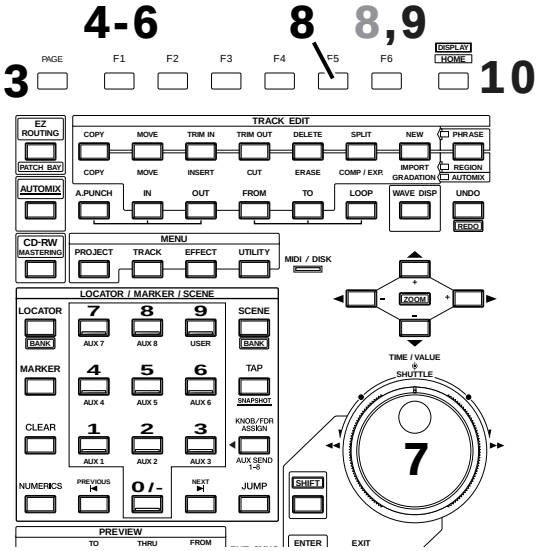
1. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.
2. Press **[EFFECT]**. Effect Condition screen will appear.



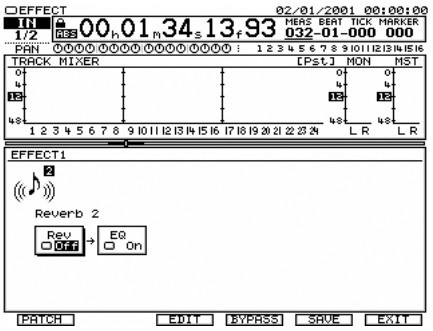


3. Press **[PAGE]** several times until function tab "Page1" will display at the front.

4. Press **[F1 (FX 1)]**. The effect algorithm used by effect 1 (FX 1) will be displayed.

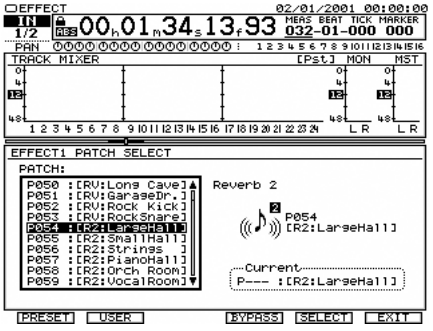


5. Press **[F1 (PATCH)]**. PATCH SELECT will appear.



6. Press **[F1 (PRESET)]**. You will be able to select patches from the preset bank.

7. Use TIME / VALUE dial to select a effect patch that you wish to use. For this example, select an effect such as "P036 :[RV:LargeHall]."



8. Press **[F5 (SELECT)]**. The effect patch used for effect 1 (FX 1) will be finalized, and you will return to the screen that displays the effect algorithm. If you wish to cancel to select the patch, press **[F6 (EXIT)]**. In this case, you will return to the screen that displays the effect algorithm, without selecting a patch.

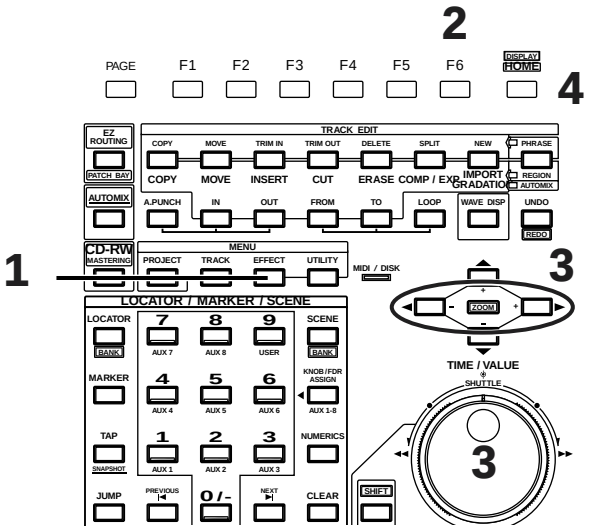
9. Press **[F6 (EXIT)]**.

10. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.

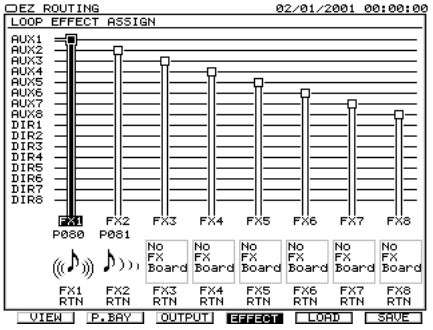
Selecting the effect bus assignment

When using the effect in a loop configuration, the AUX bus is used as the effect bus. Here we will explain how to assign the effect bus.

1. Press **[EZ ROUTING (PATCH BAY)]**. Routing View screen will appear.
2. Press **[F4 (EFFECT)]**. Loop Effect Assign screen will appear.



3. Select the AUX bus that you wish to use as the effect bus. Here we will send the FX 1 effect to AUX 1. Use **[◄][►]** to move the cursor to "FX1," and use the TIME / VALUE dial to set the intersection of the bus to "AUX1." Here we will send the AUX1 signal to the Effect 1 (FX 1).



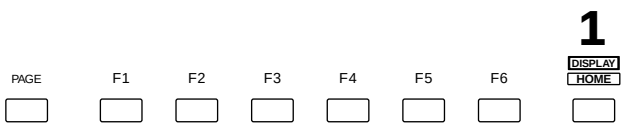
4. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.

MEMO

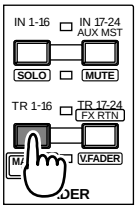
You cannot change the AUX send in the Loop Effect Assign screen and Channel View screen. At this time, you can change the AUX send in the Master Edit screen.

Applying a Loop Type Effect During Playback

It is common to apply a send / return type effect such as reverb or delay during playback. The following example shows how you can apply reverb (FX1) to track 1 during playback.

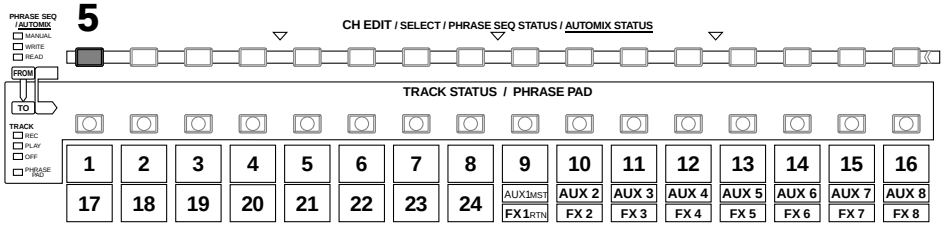


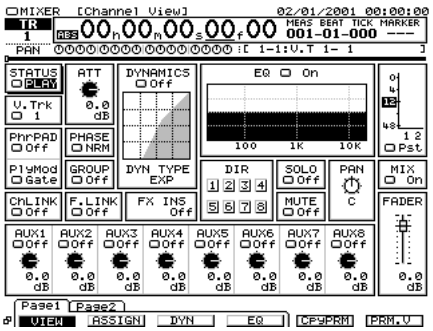
1. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.
2. As described in "**Selecting the effect bus assignment** (p. 52)," specify which AUX bus will be used as the effect bus.
3. Press **[TR 1-16 (MASTER EDIT)]**. **[TR 1-16 (MASTER EDIT)]** indicator will light, and **[CH EDIT]** will be the Track Mixer channel edit buttons for channels 1–16.

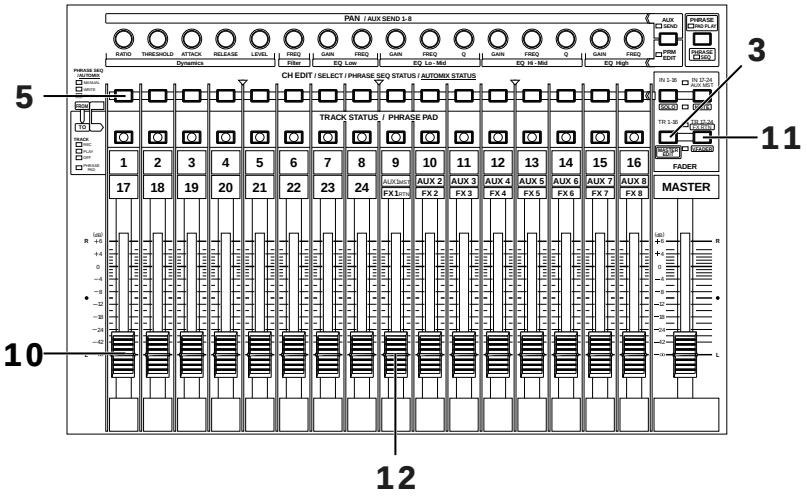


4. Hold **[STOP]** and press track channel 1 **[TRACK STATUS]**. **[TRACK STATUS]** will light green, track channel 1 will be the playback track.

5. Press **[CH EDIT]** for the track mixer channel whose effect you wish to use. For this example, Press channel 1 **[CH EDIT]**. Mixer Condition screen will appear.


5
CH EDIT / SELECT / PHRASE SEQ STATUS / AUTOMIX STATUS
TRACK STATUS / PHRASE PAD
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 AUX1MST FX1RTN AUX 2 FX 2 AUX 3 FX 3 AUX 4 FX 4 AUX 5 FX 5 AUX 6 FX 6 AUX 7 FX 7 AUX 8 FX 8





6. Output the signal to AUX 1. Use **[▲][▼][◀][▶]** to move the cursor to AUX 1 Send switch, use the TIME / VALUE dial to set the send switch to a setting other than Off.

7. Use **[▲][▼][◀][▶]** to move the cursor to AUX 1 knob, use TIME / VALUE dial to adjust the effect send level. Normally, you will set at the 0 dB position.

8. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.

9. Press **[PLAY]**. The project will playback.

10. Adjust the channel fader to a comfortable level for track 1.

11. Press **[TR 17-24/FX RTN (V.FADER)]**. **[TR 17-24/FX RTN (V.FADER)]** will light, and channel fader will adjust the Track Mixer channel 17–24 and Effect 1–8 Return level.

12. Raise and lower FX1RTN fader. The effect depth will change. Adjust to the desired depth.

13. When the audition ends, press **[STOP]**.

MEMO

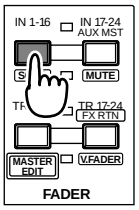
If you wish to use a different effect, re-select the effect patch as described in "**Selecting the effect patch you wish to use** (p. 50)."

Applying a Loop Type Effect Only to the Monitor Sound as You Record

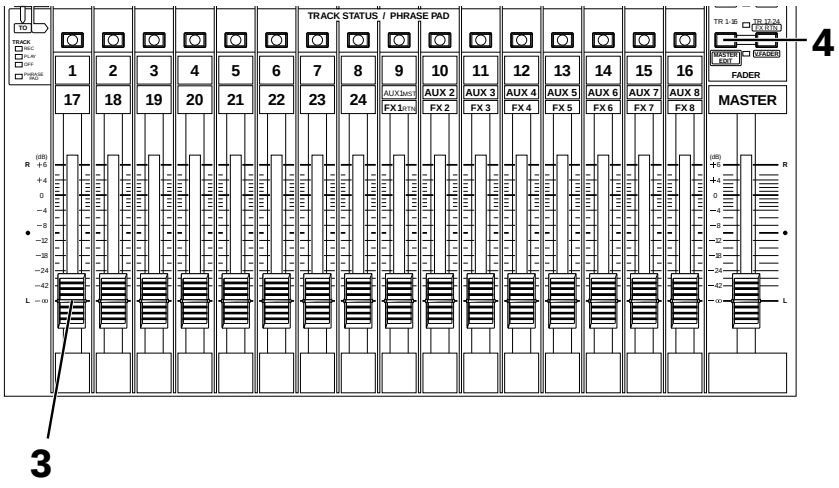
The following example shows how a source connected to the INPUT 1 jack can be recorded on track 2 directly (without effects) while you apply a send / return type effect such as reverb or delay to the monitor sound. This is convenient when you wish to hear a reverb (FX1) on a vocal (for example) as you record, but would like to try out various reverb settings during playback.

1. Press **[HOME (DISPLAY)]**. Home Condition will appear.

2. Press **[IN 1-16 (SOLO)]**. **[IN 1-16 (SOLO)]** indicator will light, channel fader will adjust the Input Mixer channel 1–16.



3. Raise and lower the channel fader 1, and verify that the volume changes. The Input Mixer channel fader is used to make fine adjustments to the recording level. In order to record with optimal audio quality, the fader should normally be set in the 0 dB position.



4. Press **[TR 1-16 (MASTER EDIT)]**. **[TR 1-16 (MASTER EDIT)]** indicator will light, and **[CH EDIT]** will be the Track Mixer channel edit buttons for channels 1–16.

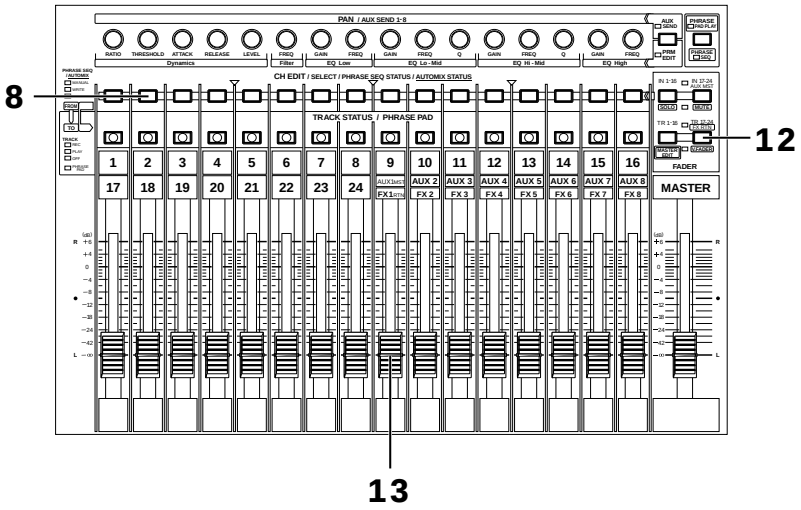
5. Hold **[REC]** and press **[TRACK STATUS]** of the track that you wish to record. For this example, hold **[REC]** and press the track 2 **[TRACK STATUS]**. **[TRACK STATUS]** will blink red.

6. As described in "**Recording On a Track** (p. 36)" step 6–9, specify which you wish to assign as the source. For this example, Input Mixer channel 1 is assigned to the recording track 2.

MEMO

Time is displayed at present on the right of the Home Condition screen in the initial state. In addition to the remaining time, the display can also be switched to remaining capacity (MB units, percentage (%), or event units).

7. As described in "**Selecting the effect bus assignment** (p. 52)," specify which AUX bus will be used as the effect bus. Here we will send the AUX1 signal to the Effect 1 (FX 1).



8. Press **[CH EDIT]** for the track mixer channel whose effect you wish to use. For this example, press channel 2 **[CH EDIT]**. Mixer Condition screen will appear.

9. Output the signal to AUX 1. Use **[▲][▼][◀][▶]** to move the cursor to the AUX1 Send switch, use the TIME / VALUE dial to set the send switch to a setting other than Off.

10. Use **[▲][▼][◀][▶]** to move the cursor to the AUX1 channel fader, use TIME / VALUE dial to adjust the effect send level. Normally, you will leave the AUX1 channel fader at the 0 dB position.

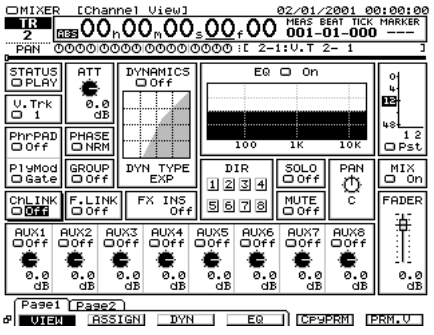
11. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.

12. Press **[TR 17-24/FX RTN (V.FADER)]**. **[TR 17-24/FX RTN (V.FADER)]** indicator will light, channel fader will adjust the Track Mixer channel 17–24 and the Effect 1–8 Return level.

13. Raise and lower the FX1RTN fader. The effect depth will change. Adjust to the desired depth.

14. Begin the recording, following the procedure described in "**Recording On a Track** (p. 36) step 11–14."

15. When you finish recording, press **[STOP]**.



16. As described in "**Playing Back the Demo Performance** (p. 28)," record a performance and then listen to it.

NOTE

At this time, the sound of input mixer channel 1 will no longer be output directly from master out, and will be routed through the track mixer.

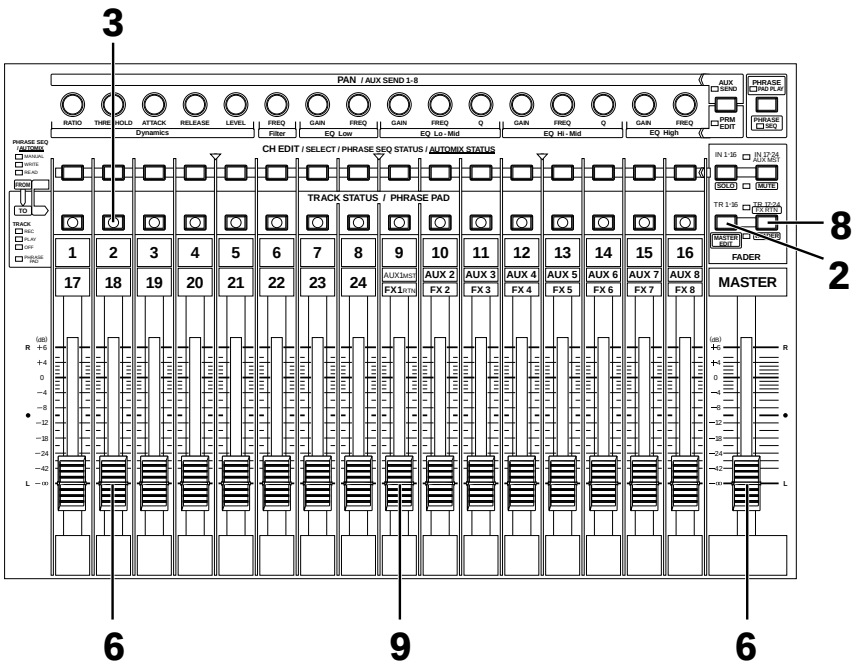
MEMO

By applying an effect to the track mixer, you can apply effects without modifying the input signal.

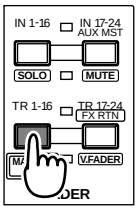
Switching Effects During Playback

While playing back the project for track 2 that you recorded in "**Applying a Loop Type Effect Only to the Monitor Sound as You Record** (p. 55)," try switching the effect and listen to the result.

1. Press **[HOME (DISPLAY)]**.
Home Condition will appear.



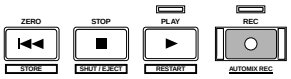
2. Press **[TR 1-16 (MASTER EDIT)]**.
[TR 1-16 (MASTER EDIT)] indicator will light, **[CH EDIT]** will be the Track Mixer edit buttons for channel 1–16.



3. Hold **[STOP]** and press Track channel 2 **[TRACK STATUS]**.
[TRACK STATUS] will light green, track channel 2 will be the playback track.

4. Press **[ZERO]**. The project will return to top of project.

5. Press **[PLAY]**. The project will playback.



4 11 5

6. Raise and lower channel fader 2 and master fader, and verify that the volume changes.Adjust the fader to a comfortable level for monitoring.

7. Select the effect patch as described in steps 2–9 of "**Selecting the effect patch you wish to use** (p. 50)." For this example, select an effect such as "P036 :[RV:LargeHall]."

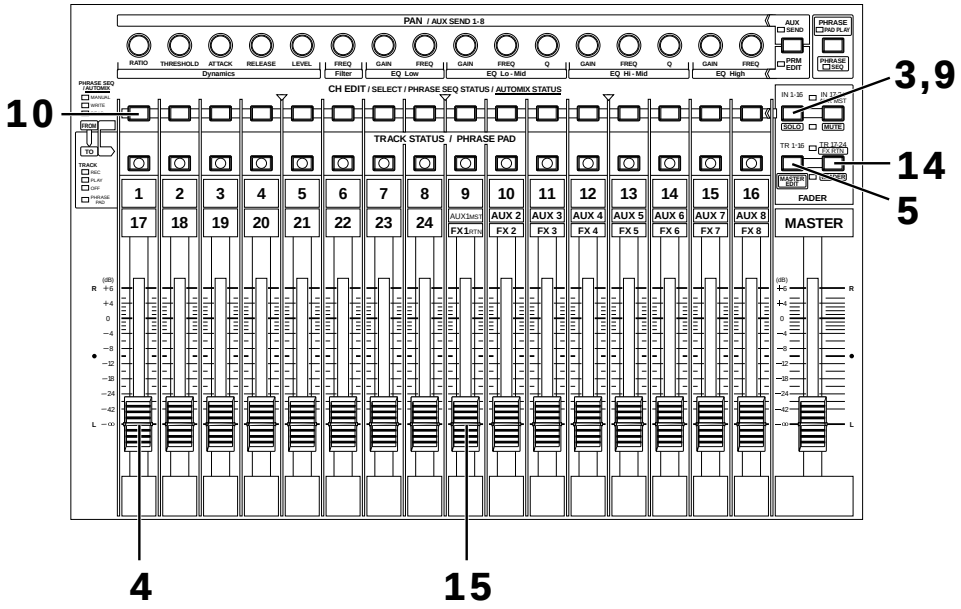
8. Press **[TR 17-24/FX RTN (V.FADER)]**. **[TR 17-24/FX RTN (V.FADER)]** indicator will light, channel fader will adjust the Track Mixer channel 17–24 and the Effect 1–8 Return level.
9. Raise and lower the FX1RTN fader. The effect depth will change. Adjust to the desired depth.
10. If you wish to hear other effects, repeat steps 4–9.
11. When the project playback ends, press **[STOP]**.

Applying a Loop Type Effect While You Record

Here we will give an example of how a loop type effect such as reverb can be applied to the source of the INPUT 1 jack, and the direct sound and effect sound recorded together on track 3. This is the method you will use when, for example, you wish to apply reverb to a vocal and record both the direct sound and effect sound together.

1. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.

2. As described in "**Selecting the effect bus assignment** (p. 52)," specify which AUX bus will be used as the effect bus.



3. Press **[IN 1-16 (SOLO)]**. **[IN 1-16 (SOLO)]** indicator will light, channel fader will adjust the Input Mixer channel 1–16 level.

4. Raise and lower the channel fader 1, and verify that the volume changes. The Input Mixer channel fader is used to make fine adjustments to the recording level. In order to record with optimal audio quality, the fader should normally be set in the 0 dB position.

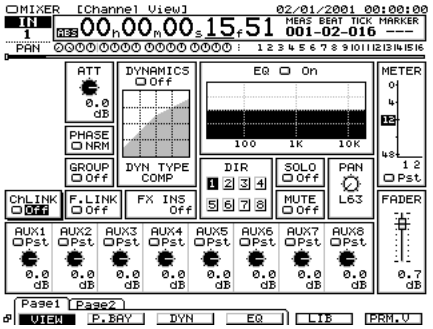
5. Press **[TR 1-16 (MASTER EDIT)]**. **[TR 1-16 (MASTER EDIT)]** indicator will light, **[CH EDIT]** will be the Track Mixer edit buttons for channel 1–16.

6. Hold **[REC]** and press **[TRACK STATUS]** of the track that you wish to record. For this example, hold **[REC]** and Track Mixer channel 3 **[TRACK STATUS]**. Track 3 will be recording track, and **[TRACK STATUS]** indicator will blink red.

MEMO

The remaining time for recording is displayed in the upper right of the home condition screen. Consider these numbers as approximate values. In addition to the remaining time, the display can also be switched to remaining capacity (MB units, percentage (%), or event units).

7. As described in "**Recording On a Track** (p. 36)" step 6–9, specify which you wish to assign as the source. For this example, effect return (FX RET) 1 and Input Mixer channel 2 are assigned to the recording track 3.
8. As described in "**Selecting the effect bus assignment** (p. 52)," specify which AUX bus will be used as the effect bus. Here we will send the AUX1 signal to the Effect 1 (FX 1).
9. Press **[IN 1-16 (SOLO)]**. **[IN 1-16 (SOLO)]** indicator will light, and **[CH EDIT]** will be the Input Mixer channel edit buttons for channels 1–16
10. Press **[CH EDIT]** for the Input Mixer channel whose effect you wish to use. For this example press Input Mixer channel 1 **[CH EDIT]**. Mixer Condition will appear.



11. Output the signal to AUX 1. Use **[▲][▼][◄][►]** to move the cursor to AUX 1 Send switch, use the TIME/VALUE dial to set the send switch to a setting other than Off.
12. Use **[▲][▼][◄][►]** to move the cursor to the channel fader, use TIME/VALUE dial to adjust the effect send level. Normally, you will set at the 0 dB position.
13. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.
14. Press **[TR 17-24/FX RTN (V.FADER)]**. **[TR 17-24/FX RTN (V.FADER)]** indicator will light, channel fader will adjust the Track Mixer channel 17–24 and the Effect 1–8 Return level.
15. Raise and lower the FX1RTN fader. The effect depth will change. Adjust to the desired depth.
16. Begin the recording, following the procedure described in "**Recording On a Track** (p. 36)."
17. When you finish recording, press **[STOP]**.
18. As described in "**Recording On a Track** (p. 36)," record a performance and then listen to it.

NOTE

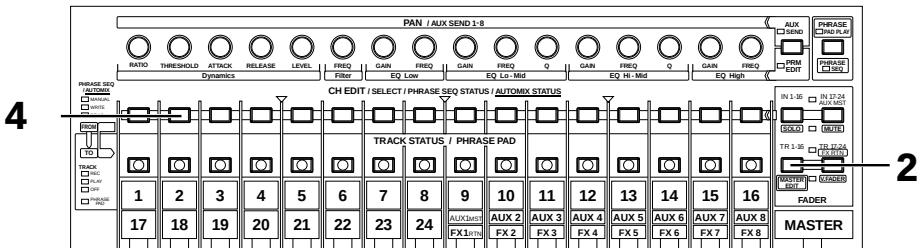
At this time, the sound of input mixer channel 1 and effect return 1 will no longer be output directly from master out, and will be routed through the track mixer.

Applying an Insertion-Type Effect During Playback

When playing back an acoustic guitar or vocal, it is common to insert an effect such as “Guitar Multi” or “Vocal Multi.” Here we will give an example of applying an insertion-type effect such as Mic Modeling (FX2) to track 2 during playback.

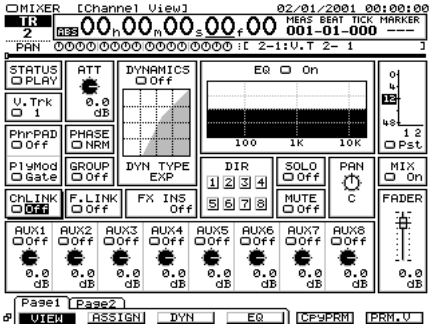
1. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.

2. Press **[TR 1-16 (MASTER EDIT)]**. **[TR 1-16 (MASTER EDIT)]** indicator will light, **[CH EDIT]** will be the Track Mixer edit buttons for channel 1–16.

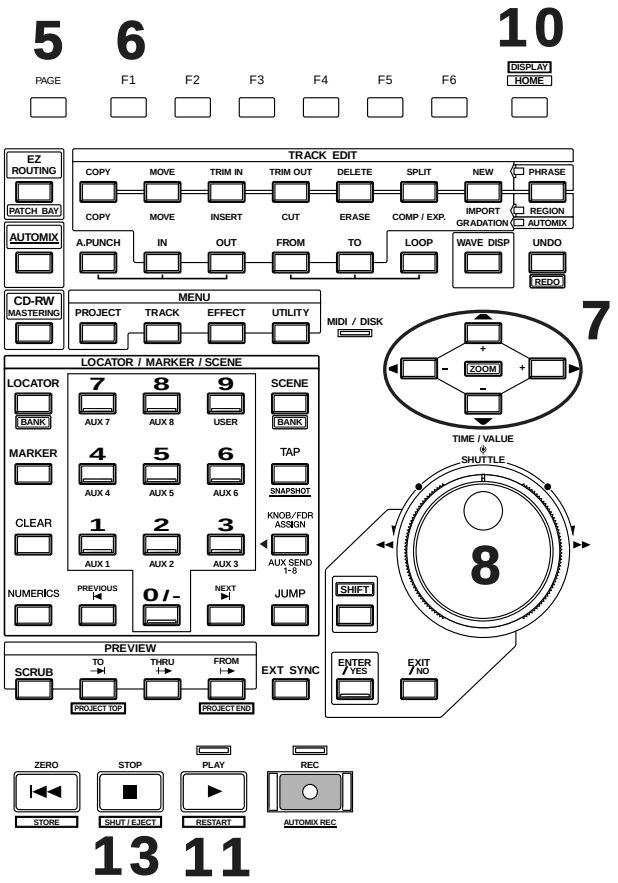

4
2
PAN / AUX SEND 1-8
CH EDIT / SELECT / PHRASE SEQ STATUS / AUTOMIX STATUS
TRACK STATUS / PHRASE PAD
FADER
MASTER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24
AUX 1 AUX 2 AUX 3 AUX 4 AUX 5 AUX 6 AUX 7 AUX 8
FX 1 FX 2 FX 3 FX 4 FX 5 FX 6 FX 7 FX 8

3. Hold **[STOP]** and press Track Mixer channel 2 **[TRACK STATUS]**. **[TRACK STATUS]** will light green, and Track channel 2 will playback track.

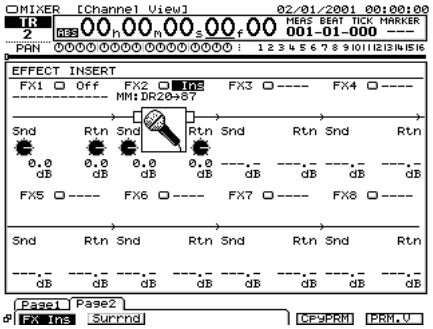
4. Press **[CH EDIT]** for the Track Mixer channel whose effect you wish to use. For this example press Track Mixer channel 2 **[CH EDIT]**. Mixer Condition will appear.



5. Press **[PAGE]** several times until function tab "Page2" will be appeared at the front.



6. Press **[F1 (FX Ins)]**. Effect Insert screen will appear.



7. Use **[▲][▼][◀][▶]** to move the cursor to "FX2."

8. Use TIME / VALUE dial to select how effect 2 will be inserted. For this example, select "Ins."

9. Select the effect patch as described in steps 2–9 of "**Selecting the effect patch you wish to use** (p. 50)." For this example, select an effect such as "P118 :[MM:DR20→87]."

10. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.

11. Press **[PLAY]**. The project will playback.

12. Raise and lower the channel fader 2, and verify that the volume changes.Adjust the fader to a comfortable level for monitoring.

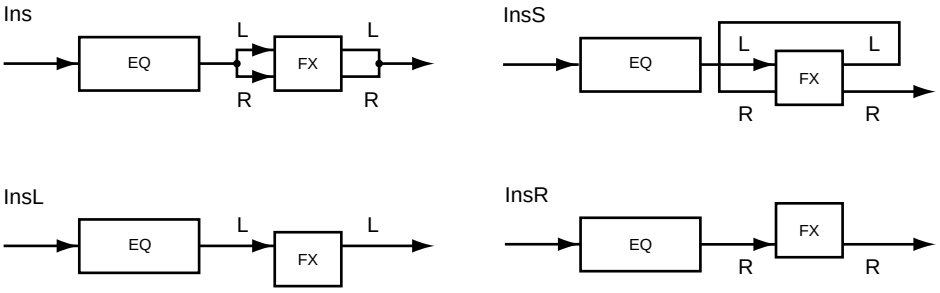
13. When you finish playback, press **[STOP]**.

NOTE

If the display indicates "FX2→IN1," effect 2 (FX 2) is inserted into another channel (in this case, into input mixer channel 1). If you re-insert this effect, the insertion effect needs to be removed with the channel that was used heretofore.

■ Inserting the Same Effect into Another Track as Well

If in step 8 you selected “Ins” or “InsS,” that effect cannot be inserted into another channel / track. If you choose “InsL” or “InsR,” you can use the other effect on another channel or track with Insert.

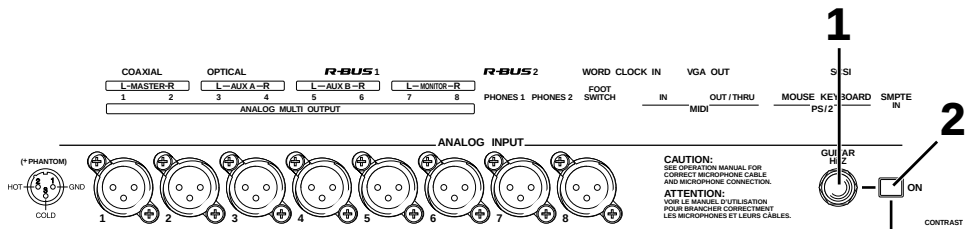


NOTE

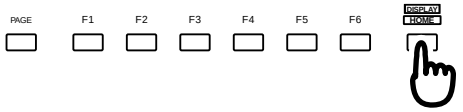
It is not possible to use the same effect for both insertion and loop.

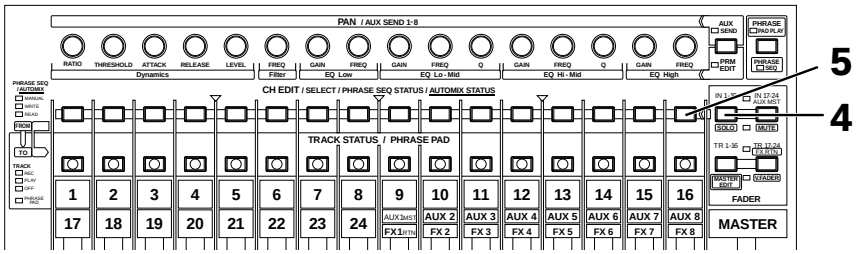
Applying an Insertion-Type Effect During Recording

When recording electric guitar or vocals etc., it is common to insert an effect such as Guitar Multi or Vocal Multi. Here we will describe how you can connect an electric guitar to the GUITAR Hi-Z jack, apply an effect (FX2), and record it on track 1.

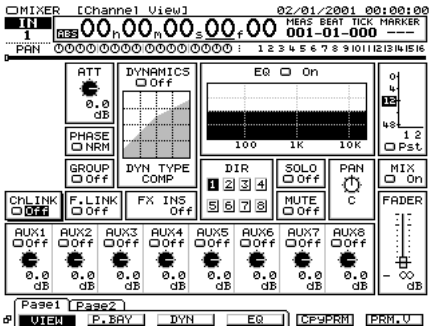


1. Connect an electric guitar to the GUITAR Hi-Z jack.
2. Push in the **[ON]** button located beside the GUITAR Hi-Z jack.
3. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.



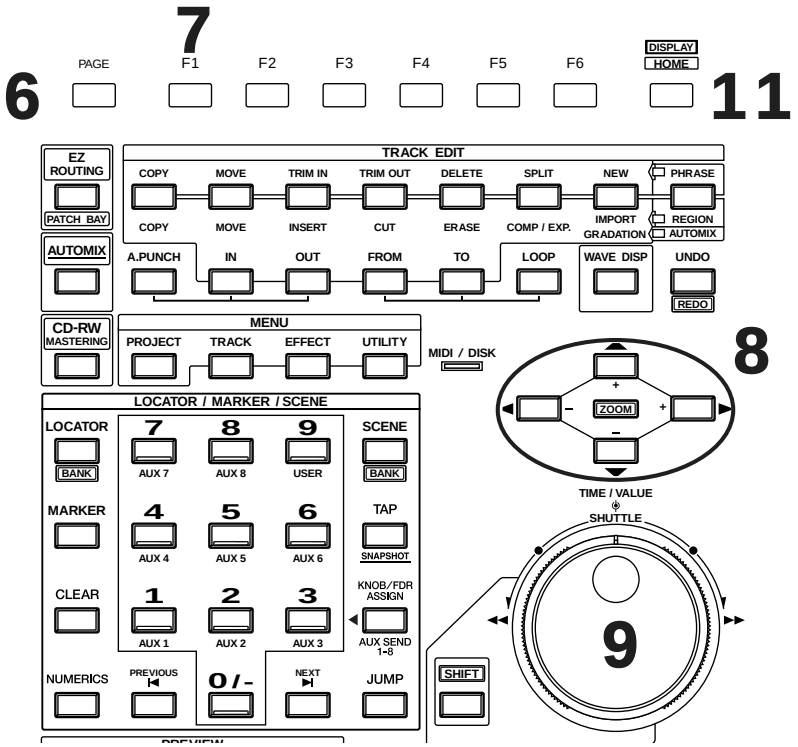


4. Press **[IN 1-16 (SOLO)]**. **[IN 1-16 (SOLO)]** indicator will light, and **[CH EDIT]** will be the Input Mixer channel edit buttons for channels 1–16.
5. Press **[CH EDIT]** of the channel to which you wish to apply the effect. For this example, press the Input Mixer channel 16 **[CH EDIT]**. Mixer Condition screen will appear.



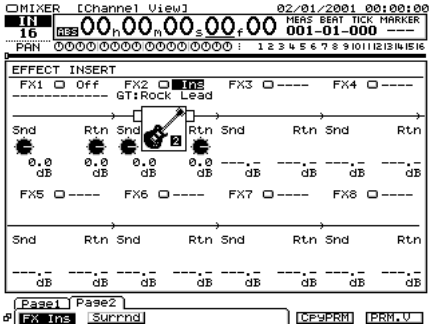
NOTE

If the **[ON]** switch located at the right of the GUITAR Hi-Z jack is pressed in, the GUITAR Hi-Z jack will be given priority. If you wish to use the ANALOG INPUT 16 jack, press **[ON]** so it is released.



6. Press **[PAGE]** several times until function tab “Page2” will be appeared at the front.

7. Press **[F1 (FX Ins)]**. Effect Insert screen will appear.



8. Use **[▲][▼][◀][▶]** to move the cursor to “FX 2.”

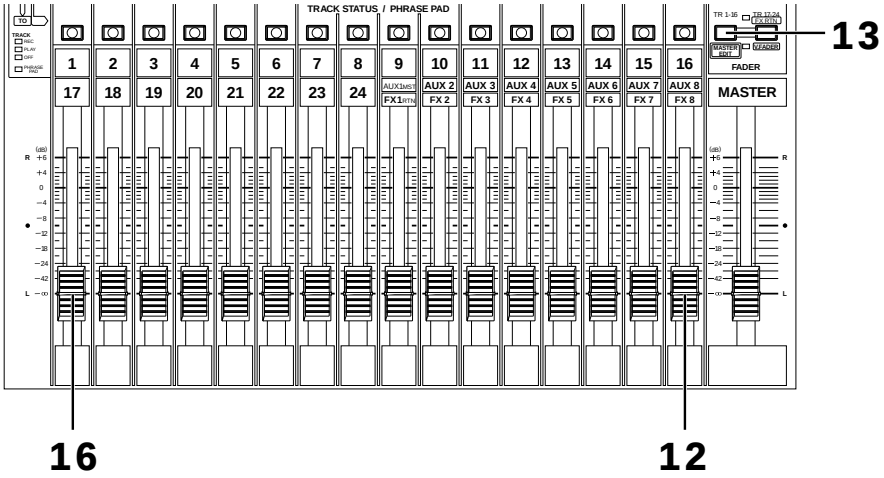
9. Use TIME / VALUE dial to select how effect 2 will be inserted. For this example, select “Ins.”

10. Select the effect patch as described in steps 2–9 of “**Selecting the effect patch you wish to use** (p. 50).” For this example, select an effect such as “P149 :[GT:Rock Lead].”

11. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.

NOTE

If the display indicates “FX2→IN1,” effect 2 (FX 2) is inserted into another channel (in this case, into input mixer channel 1). If you re-insert this effect, the insertion effect needs to be removed with the channel that was used heretofore.



12. Raise and lower the channel fader 16, and verify that the volume changes. The Input Mixer channel fader is used to make fine adjustments to the recording level. In order to record with optimal audio quality, the fader should normally be set in the 0 dB position.

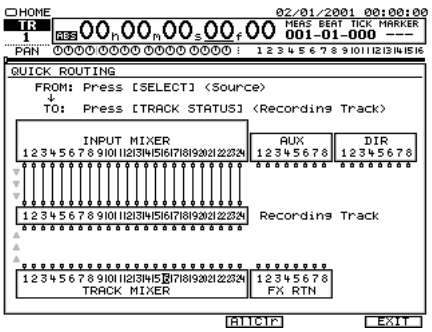
13. Press **[TR 1-16 (MASTER EDIT)]**.
[TR 1-16 (MASTER EDIT)] indicator will light, channel fader will adjust the Track Mixer channel level 1–16.

14. Hold **[REC]** and press **[TRACK STATUS]** of the track that you wish to record. For this example, hold **[REC]** and Track Mixer channel 1 **[TRACK STATUS]**. Track 1 will be recording track, and **[TRACK STATUS]** indicator will blink red.

15. As described in "**Recording On a Track** (p. 36)" step 6–9, specify which you wish to assign as the source. For this example, Input Mixer channel 16 is assigned to the recording track 1.

16. Begin the recording, following the procedure described in "**Recording On a Track** (p. 36)" step 11–14.

17. As described in "**Playing Back the Demo Performance** (p. 28)," record a performance and then listen to it.



NOTE

At this time, the sound of input mixer channel 16 will no longer be output directly from master out, and will be routed through the track mixer.

MEMO

The remaining time for recording is displayed in the upper right of the home condition screen.Consider these numbers as approximate values. In addition to the remaining time, the display can also be switched to remaining capacity (MB units, percentage (%), or event units).

Add Finishing Touches to Your Project

Here we will explain the procedure by which a recorded performance can be mixed down on the VS-2480 / 2480CD to a two-track stereo master, and then recorded as an original audio CD.

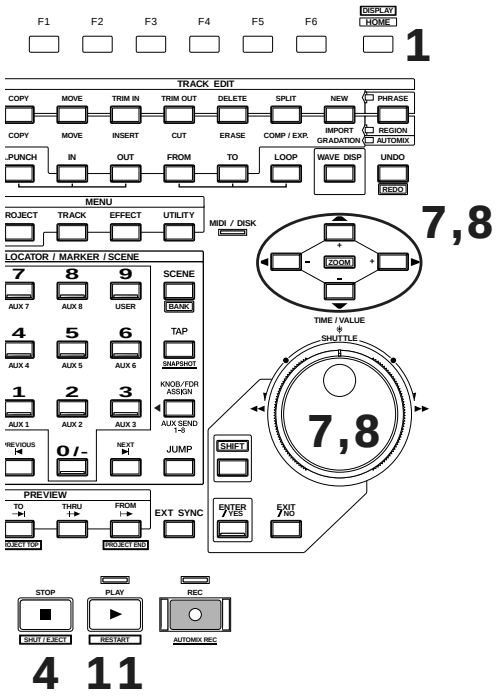
NOTE

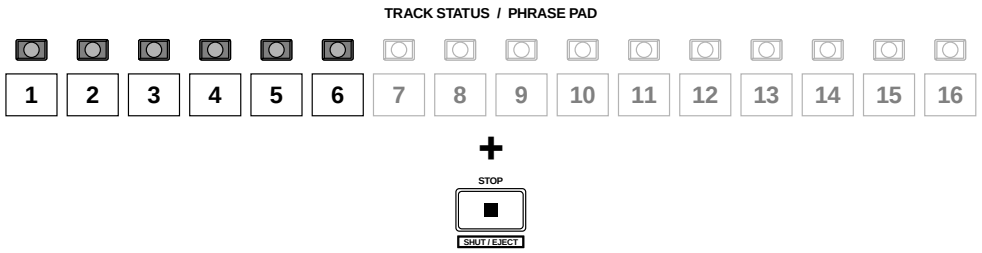
In order to create an original audio CD, you will need the Roland CD recorder (sold separately).

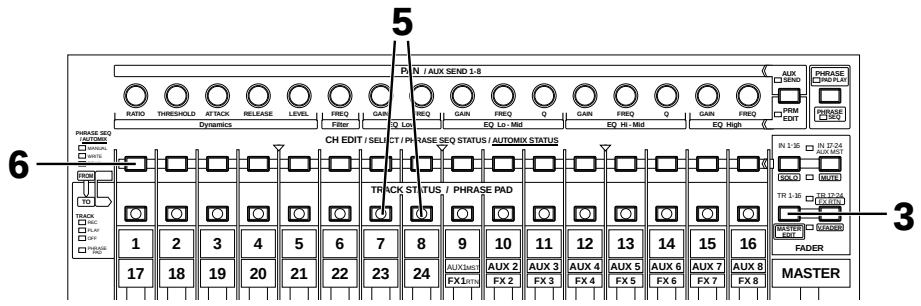
Combining the Performances of Multiple Tracks (Track Bouncing)

Performances that are recorded on two or more tracks can be mixed, and re-recorded on one or two other vacant tracks. This process is called Track Bouncing, and is convenient when you are beginning to run out of vacant tracks.
Here we will demonstrate an example of mixing down a performance that was recorded on tracks 1–6, and applying reverb (FX1) to the entire project as we re-record it to tracks 7 and 8 in stereo.

1. Press **[HOME (DISPLAY)]**.
   Home Condition screen will appear.
2. Decide which AUX bus you will use for the effect(p. 52).
3. Press **[TR 1-16 (MASTER EDIT)]**.
   [TR 1-16 (MASTER EDIT)] indicator will light, **[CH EDIT]** become the channel edit buttons for track mixer Channels 1–16.
4. Hold **[STOP]** and press track 1–6 **[TRACK STATUS]**.
   [TRACK STATUS] indicator will light green.







5. Press track channel 7 or 8 **[TRACK STATUS]** several times until light goes off. Track channel 7 and 8 will turn off (silent).

6. Press **[CH EDIT]** of the track channel(s) to which you wish to apply the effect. For this example, press the track channel 1 **[CH EDIT]**. Mixer Condition screen will appear.

7. Sends the signal to the AUX1. Use **[▲][▼][◀][▶]** to move the cursor to AUX1 Send switch, Use TIME / VALUE dial to set the send switch to something other than "Off."

8. Use **[▲][▼][◀][▶]** to move the cursor to "AUX1," use TIME / VALUE dial to adjust the AUX1 send level.

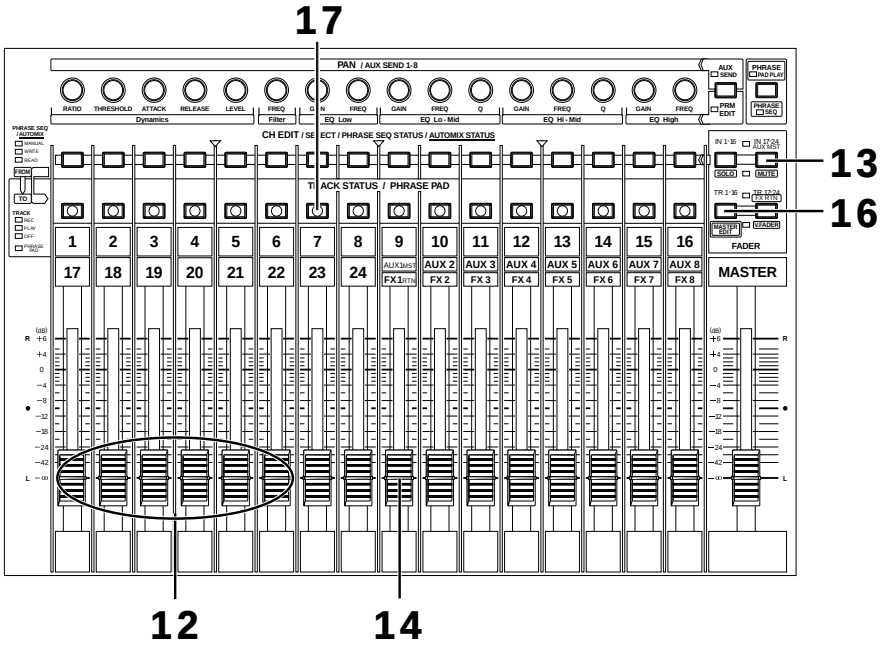
9. If you wish to adjust the effect of other channels, repeat Steps 6–8.

10. Change the effect patch, following the procedure described in "**Selecting the effect patch you wish to use** (p. 50)" step 2–9. Here you should select "P036 :[RV:LargeHall]."

11. Press **[PLAY]**. Project will be playback.

NOTE

Be sure to turn off the effect switch of track channels 7 and 8.



12. Use channel faders 1–6 to adjust the volume balance of the tracks. At this time, the sound that you are monitoring (volume levels and pan) will be

recorded on tracks 7 and 8 just as you hear it. It is best to record at as high a level as possible without allowing the sound to distort.

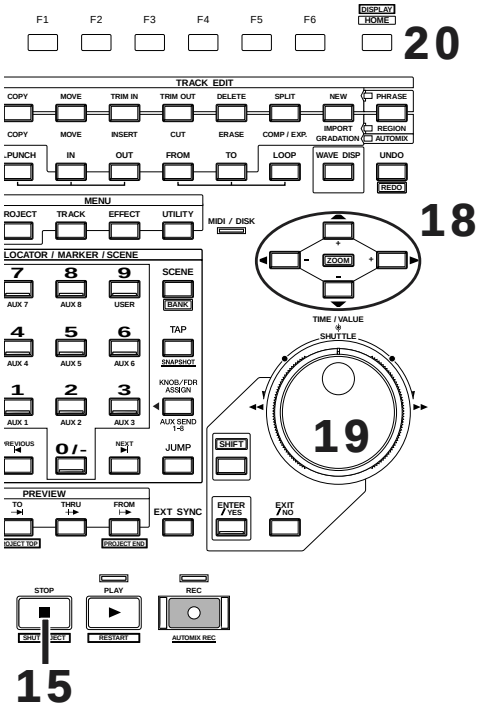
13. Press **[IN 17-24/FX RTN (MUTE)]**. **[IN 17-24/FX RTN (MUTE)]** indicator will light, faders become the adjusting levels for Input Mixer channel 17–24 and effect 1–8.

14. Raise and lower FX1RTN fader, to adjust the effect return level. At this time, the sound that you are monitoring will be record to tracks 7 and 8 exactly as you hear it.

15. When you finish adjusting the volume, press **[STOP]**. The project playback will stop.

16. Press **[TR 1-16 (MASTER EDIT)]**.
[TR 1-16 (MASTER EDIT)] indicator will light, **[CH EDIT]** become the channel edit buttons for Track Mixer channels 1–16.

17. Press **[CH EDIT]** for one of the track channels you wish to record (whether left or right does not matter). For this example, press the track channel 7 **[CH EDIT]**. Mixer Condition screen will appear.

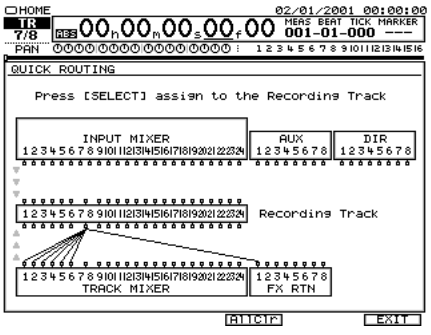


18. Use **[▲][▼][◄][►]** to move the cursor to the "ChLink."

19. Use the TIME / VALUE dial to change the ChLink parameter to set "On." The mixer parameters of tracks 7 and 8 will be linked, and pan will be placed at left for track 7, and at right for track 8 (stereo channel).

20. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.

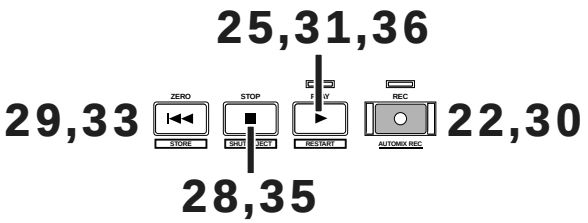
21. Assign the source which you wish to record, following the procedure described in "**Recording On a Track** (p. 36)" step 6–9. For this example, Assign the Track Mixer channels 1–6 and FX RET 1 to recording track 7.



NOTE

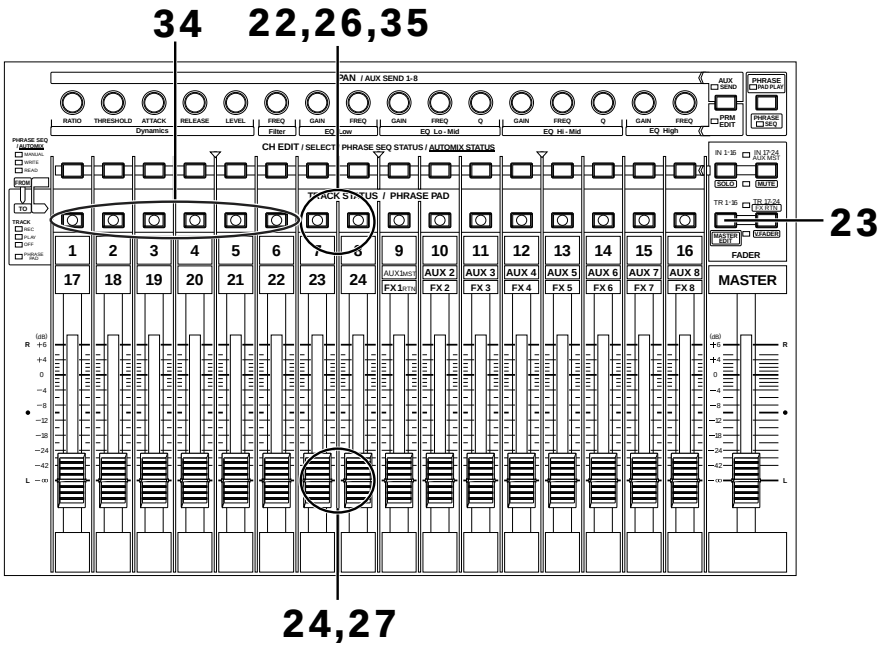
At this time, the sounds of track 1–6 will no longer be output directly from master out.

22. Hold **[REC]** and press channel 7 or 8 **[TRACK STATUS]**.



23. Press **[TR 1-16 (MASTER EDIT)]**. **[TR 1-16 (MASTER EDIT)]** indicator will light, channel faders become the Track Mixer level for channel 1–16.

24. Lower the channel fader 7 or 8 to the lowest position.



25. Press **[PLAY]**. The project will playback.

26. Press **[TRACK STATUS]** 7 or 8. **[TRACK STATUS]** 7 and 8 indicators will blink in red and orange (Monitor mode).

27. Raise and lower channel fader 7 or 8, and verify that the volume of the recording tracks (7 or 8) changes. Track channel fader 7 is used for monitoring. Id does not affect the recording level. You can record even if you hear no sound. Adjust the volume to a comfortable listening level.

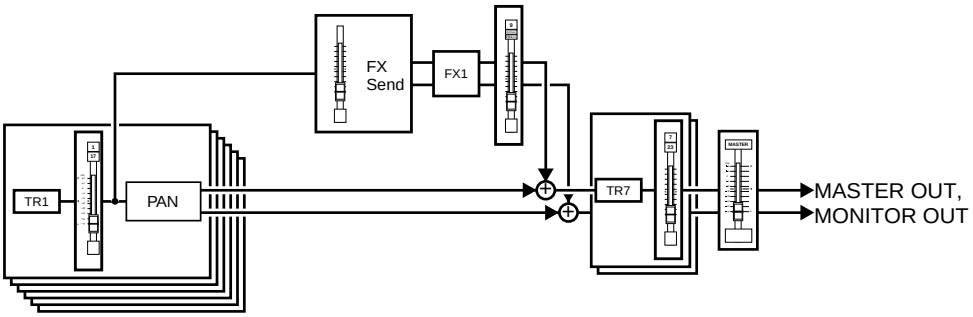
28. When you have finished adjusting the volume, press **[STOP]**. The project playback will stop.

29. Press **[ZERO (STORE)]**. You will return to the beginning of the project.

MEMO

When **[TRACK STATUS]** is blinking red, if you press **[TRACK STATUS]** again, **[TRACK STATUS]** will blink red and orange. In this mode, although the red light does flash and signals passing through the REC BUS can be monitored, recording does not begin when **[REC]** is pressed (Monitor mode).

Signal Flow (Routing)



30. Press **[REC]**. **[REC]** indicator will blink red.

31. Press **[PLAY]**. **[PLAY]** indicator will light green, and recording will begin.

32. When you finish recording, press **[STOP]**. The project playback will stop.

33. Press **[ZERO]**. You will return to the beginning of the project.

34. Press track channel 1–6 **[TRACK STATUS]** several times until not lit. Track channel 1–6 will not produce sound.

35. Hold **[STOP]** and press track channel 7 or 8 **[TRACK STATUS]**. **[TRACK STATUS]** will light green.

36. Press **[PLAY]**. The project will playback. Use channel fader 7 or 8 and master fader to adjust the volume to a comfortable listening level.

Mixing down to the mastering tracks (Mastering Room)

Here's how to select the mastering tracks (any V.Track of the track 23/24), and perform a mixdown.In order to create an original audio CD, you can specify two of the VS-2480/2480CD's tracks as the left track and right track, and write them to a CD-R disc. A performance that has not yet been mixed down must be mixed down to 2-track stereo.

NOTE

When 96k, 88.2k or 64kHz is selected, that Mastering Tool Kit cannot be used.

■ Mixing down to the mastering tracks

NOTE

The operation of playing back 24 tracks while you mixdown to the mastering tracks (any V.Track of 23, 24 Track) is significantly affected by the speed of the hard disk. For this reason, depending on the structure of the project data (sampling rate and recording mode, or when punch-in/out is used frequently, etc.), or depending on the drive that you use, the display may indicate "Drive Busy," and the operation may not take place correctly. In order to take full advantage of the VS-2480's potential, such as the number of tracks that can be recorded/played simultaneously, and the recording capacity, we recommend that you use a hard disk which capacity is 40 GB (HDP35-40G) or more.

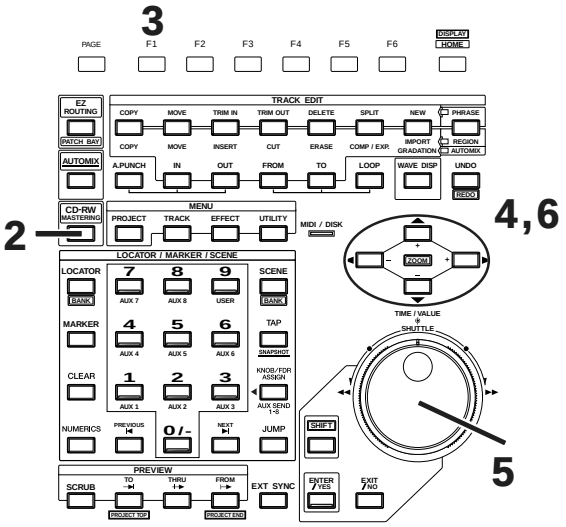
NOTE

The number of tracks available for simultaneous recording and playback depend on the sampling frequency and recording mode settings as shown "Disk Recorder Section" (Owner's Manual p. 14).

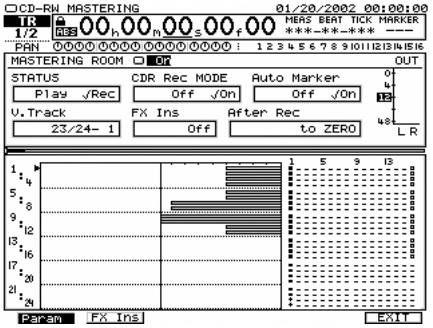
MEMO

When 96 kHz, 88.2 kHz or 64 kHz is selected and M24, M16 or CDR is selected, simultaneous recording/playback is limited to eight tracks (when 48–32 kHz is selected, simultaneous recording/playback is limited to 16 tracks). About Recording Mode, refer to Owner's Manual "About Recording Mode." (p. 74)

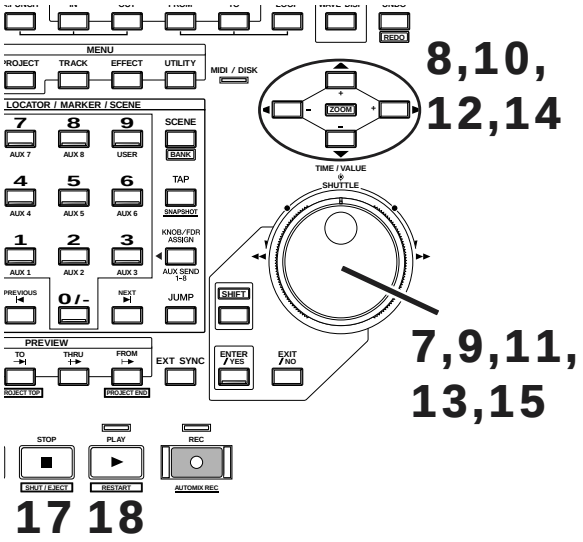
1. If you wish to insert effects while mastering, select the desired effect assignment and patch before you continue. For detail refer to "**Applying an Insertion-Type Effect During Playback** (p. 61)" step 1–10. For this example, select an effect such as "P231 :[MTK:Mixdown]". If you wish to mastering without Insertion effect, step 1 is not necessary.



2. Press **[CD-RW (MASTERING)]**. CD-RW/Mastering menu screen will appear.
3. Press **[F1 (Mstrng)]**.
4. Use **[▲][▼][◄][►]** to move the cursor to switch.



5. Use TIME/VALUE dial to select "On." A dedicated mastering track will appear.
6. Use **[▲][▼][◀][▶]** to move the cursor to "STATUS."
7. Use TIME/VALUE dial to select "Rec." Allowing you to mix down to the mastering track.



8. Use **[▲][▼] [◀][▶]** to move the cursor to "V.Track."
9. Use TIME/VALUE dial to select the V.Track of Mastering track. For this example, select "1."
10. Use **[▲][▼] [◀][▶]** to move the cursor to "CDR Rec Mode."
11. If you want to make a audio CD, use TIME/VALUE dial to select "On."
12. Use **[▲][▼][◀][▶]** to move the cursor to "After Rec."
13. Specify the time location of the mastering track to which the mixdown will be recorded. When creating an original audio CD, it is usually best to select "to Zero."

About After Rec parameter

to ZERO	Place the data starting at 00h00m00s00f.
to last Phrs:0S	Place the data after the end of the last phrase in the mastering tracks.
to last Phrs:2S	Place the data two seconds after the end of the last phrase in the mastering tracks.
to last Phrs:4S	Place the data four seconds after the end of the last phrase in the mastering tracks.
Stay HERE	Place the data at the time location at which it was actually recorded.

14. Use **[▲][▼][◀][▶]** to move the cursor to "Auto Marker."
15. If this is turned "On," a track number marker will automatically be assigned to the beginning of the phrase that is mixed down. Normally you will set this "On."

MEMO

For details on the signal flow (routing) at this time, refer to "**Signal Flow (Routing)** (p. 75)."

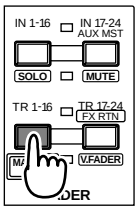
MEMO

Depending on the After Rec (After Recording) setting or on the location relative to other markers, the display may indicate "Can't Set Marker," and the track number marker may not be assigned.

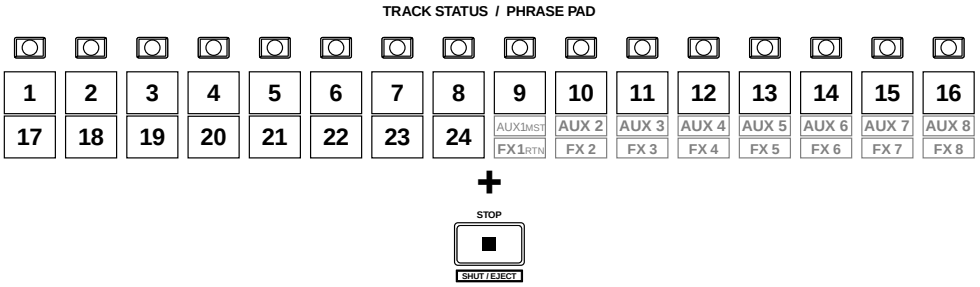
MEMO

Mastering Track is any V.Track of the track 23/24.

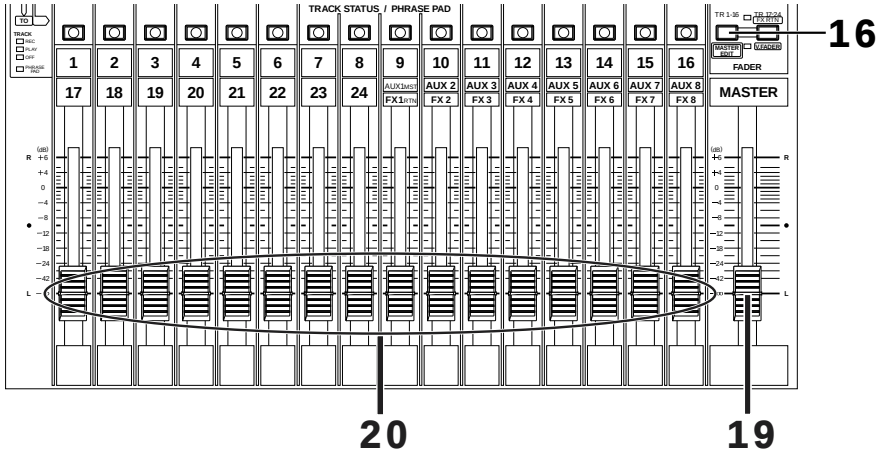
16. Press **[TR 1-16 (MASTER EDIT)]**. **[TR 1-16 (MASTER EDIT)]** indicator will light, and channel faders will adjust the Track Mixer channel 1–16.



17. Hold **[STOP]**, press **[TRACK STATUS]** for the Track Mixer channel 1–24 which you want to mixdown.
[TRACK STATUS] indicator will light green.


TRACK STATUS / PHRASE PAD
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24
AUX1MST AUX 2 AUX 3 AUX 4 AUX 5 AUX 6 AUX 7 AUX 8
FX1RTN FX 2 FX 3 FX 4 FX 5 FX 6 FX 7 FX 8
+
STOP
SHUT / EJECT

18. Press **[PLAY]**. The project will playback.



19. Raise and lower the master fader, and verify that the volume of each track changes.

20. Use the channel faders (1–24) to adjust the volume balance of each track. At this time, the sound that is being output from the MASTER jacks (volume levels, panning) will be recorded to the mastering tracks. It is best to set The volume as high as possible without causing the volume to distort.

21. When you have finished adjusting the volume, press **[STOP]**.

22. Press **[HOME (DISPLAY)]**, Home Condition screen will appear.

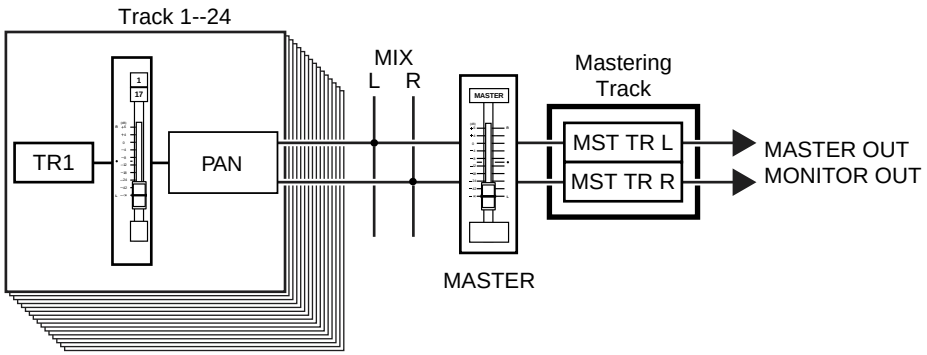
MEMO

To switch the **[TRACK STATUS]** of tracks 17–24, press **[TR 17-24 / FX RTN (V.FADER)], getting the indicator to light, and then switch the setting.**

MEMO

The sound that passes through the master fader will be recorded on the mastering tracks. In order to record at the optimal audio quality, you should normally set this to the 0 dB position.

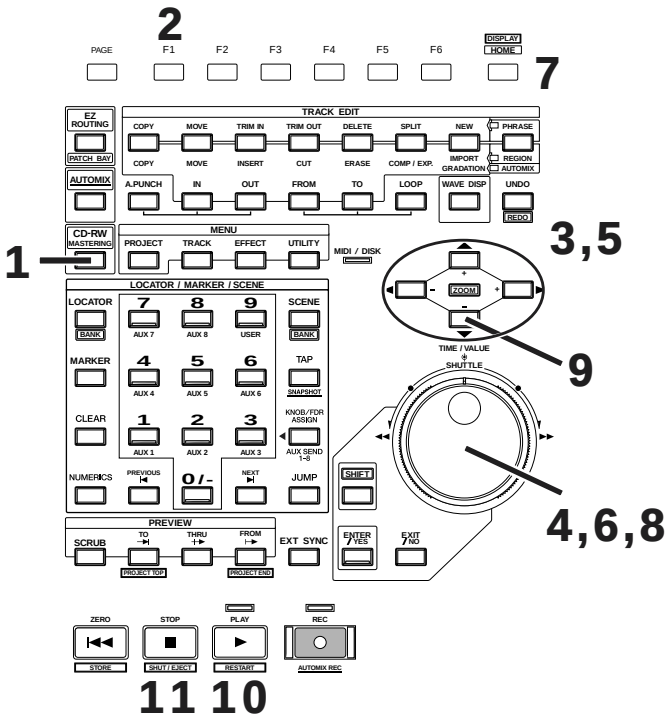
Signal Flow (Routing)



23. Use the TIME / VALUE dial or the SHUTTLE ring to move to the time location (such as 00h00m00s00f) at which you wish to begin mixdown.
24. Press **[REC]**. The **[REC]** indicator will light in red.
25. Press **[PLAY]**. The **[PLAY]** indicator will light in green, and recording will begin.
26. When you finish recording, press **[STOP]**.

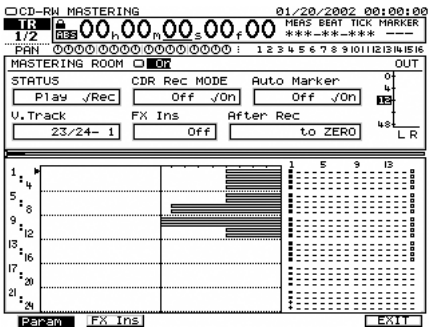
Playing back the mastering tracks

Here's how you can verify the audio that was mixed down to the mastering tracks. Tracks 1–24 will not be played back.



1. Press **[CD-RW (MASTERING)]**. CD-RW / Mastering menu screen will appear.
2. Press **[F1 (Mstrng)]**.

3. Use **[▲][▼][◀][▶]** to move the cursor to switch.



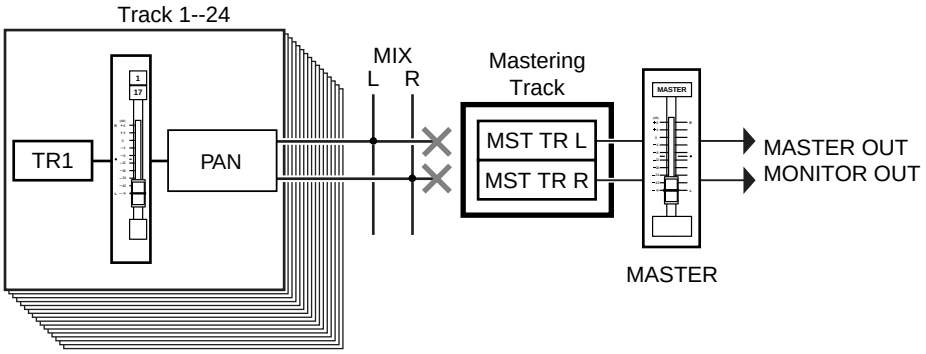
4. Use TIME/VALUE dial to select "On." A dedicated mastering track will appear.

5. Use **[▲][▼][◀][▶]** to move the cursor to "STATUS."

6. Use TIME/VALUE dial to select "Play." A dedicated mastering track will appear, allowing you to playback to the mastering track.

7. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.

Signal Flow (Routing)



8. Use the TIME/VALUE dial or the SHUTTLE ring to move to the time location at which you begin the mixdown.

9. Press **[▼]** several times until view the playlist of Mastering Track.

10. Press **[PLAY]**. The Mastering Track will playback. Use the master fader to adjust the volume to a comfortable listening level.

11. When playback ends, press **[STOP]**.

MEMO

For details on the signal flow at this time, refer to "**Signal Flow (Routing)** (p. 76)."

NOTE

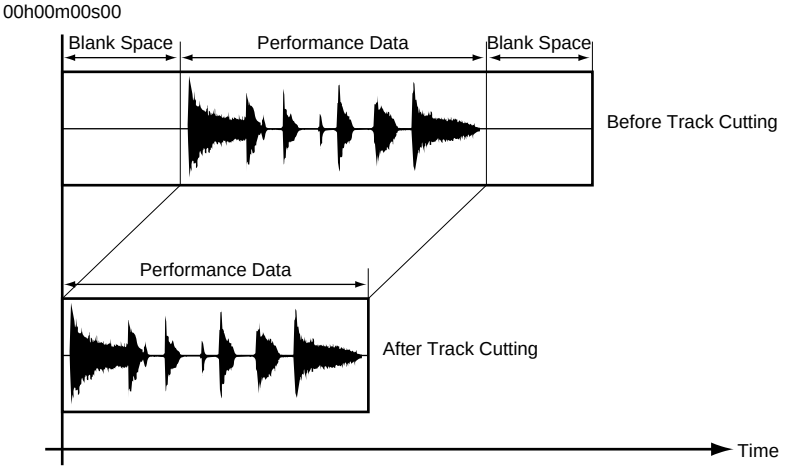
With Mode set to Play mode, you cannot carry out ordinary playback or track editing on Tracks 1–24.

Erasing an Unwanted Portion (Track Cut)

Project data that was track-bounced will be recorded to the CD-R disc starting form "00h00m00s00" of that track and ending at the end of the project (project end). This means that if there are silent portions at the beginning or end of the performance, that capacity of the CD-R disc will be wasted. To avoid this, you can erase unwanted portions.

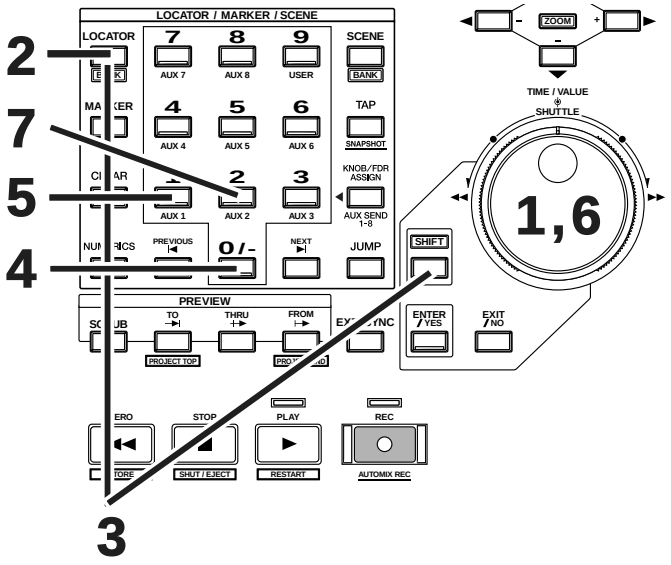
NOTE

For detail refer to "Deleting Performance Data (Region Cut)" (Owner's Manual P. 89).



■ Selecting the Portion that will be Written to the CD-R disc

To simplify the task of assembling the track cuts, you can select a desired area, and register it in the Locator function. For details on registering / deleting Locator entries, refer to "Storing Locators" (Owner's Manual p. 39).

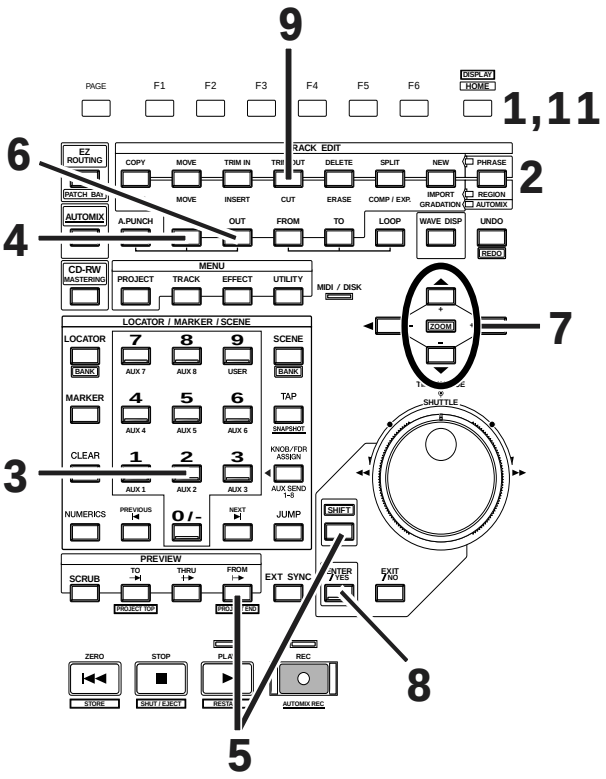


1. Use the TIME / VALUE dial or SHUTTLE ring to move to the time location at which you wish to begin writing.
2. Select the LOCATOR BANK. Press **[LOCATOR (BANK)]**.
3. Hold **[SHIFT]** and press **[BANK (LOCATOR)]**. The numerics buttons (**[0]**–**[9]**) will blink (current bank number will light), and become the bank number buttons.
4. Select the bank number. Press the numerics buttons (**[0]**–**[9]**). For this example, press **[0]**.
5. Select locator number. Press **[1]**. The start time of the project will be registered, and the **[1]** indicator will light.

6. Use the TIME / VALUE dial or SHUTTLE ring to move to the time location at which you wish to stop writing.
7. Press **[2]**. The end time of the project will be registered, and the **[2]** indicator will light.

■ Deleting an Unwanted Portion At the End of the Project

1. Press **[HOME (DISPLAY)]**. Home Condition will appear.
2. Press **[PHRASE/REGION]** in TRACK EDIT several times until indicator light red.
3. Press **[2]**. Move to the time location at which you wish to stop writing.
4. Press **[IN]** in TRACK EDIT. The start time of the region to be erased will be registered as the edit start time, and the **[IN]** indicator will light.



5. Hold **[SHIFT]** and press **[PROJECT END (FROM)]** in PREVIEW. Move to the time location to end of project.
6. Press **[OUT]** in TRACK EDIT. The end time of the region to be erased will be registered as the edit end time, and the **[OUT]** indicator will light.
7. Use **[▲][▼]**to move the cursor that you wish to cut the tracks.
8. Press **[ENTER/YES].**
9. Press **[CUT]** in TRACK EDIT.
10. When Track Cut is completed, “Done!” dialog will appear, and erase from in time to out time.
11. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.

MEMO

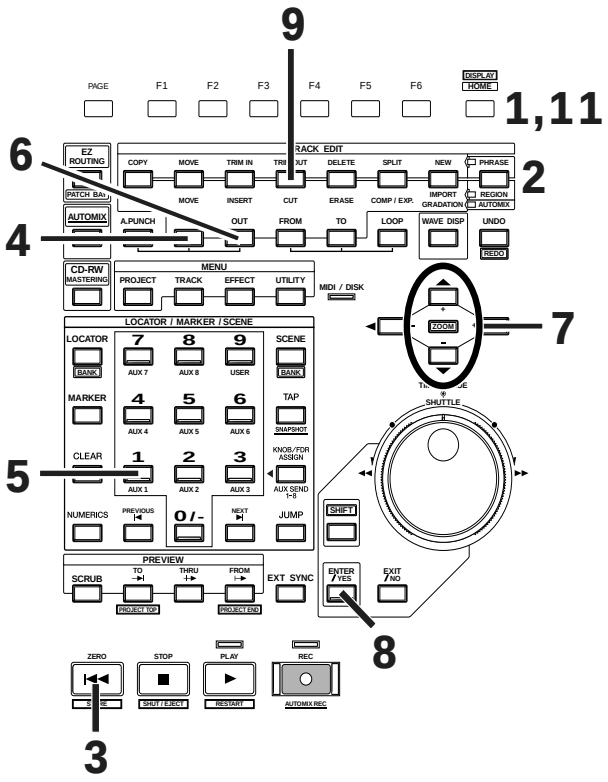
If the locator number indicators are already lit, time locations have already been registered. If you wish to re-register them, hold down **[CLEAR]** and press locator number. The indicator will go out, and the locators will be erased.

MEMO

If the locator number indicators are already lit, time locations have already been registered. If you wish to re-register them, hold down **[CLEAR]** and press locator number. The indicator will go out, and the locators will be erased.

■ Deleting an Unwanted Portion At the beginning of the Project

1. Press **[HOME (DISPLAY)]**. Home Condition will appear.
2. Press **[PHRASE/REGION]** in TRACK EDIT several times until indicator light red.
3. Hold **[SHIFT]** and press **[PROJECT TOP (TO)]** in PREVIEW. Move to the start time of the region to be erased.
4. Press **[IN]** in TRACK EDIT. The start time of the region to be erased will be registered as the edit start time, and the **[IN]** indicator will light.



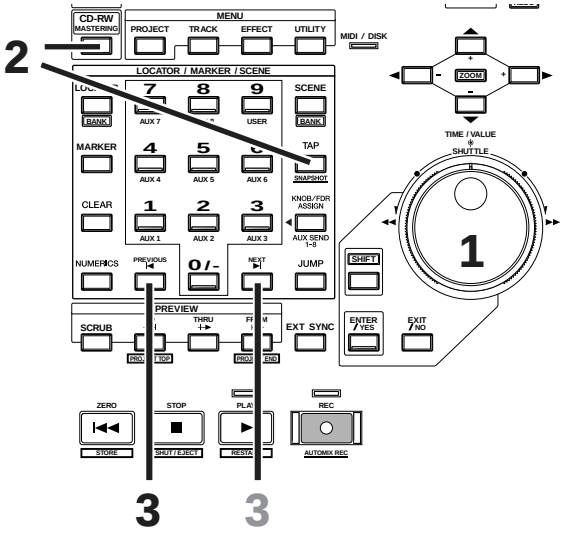
5. Press **[1]**. Move to the time location at which you wish to begin writing.
6. Press **[OUT]** in TRACK EDIT. The end time of the region to be erased will be registered as the edit end time, and the **[OUT]** indicator will light.
7. Use **[▲][▼]**to move the cursor that you wish to cut the tracks.
8. Press **[ENTER/YES].**
9. Press **[CUT]** in TRACK EDIT.
10. When Track Cut is completed, “Complete” dialog will appear, and erase from in time to out time.
11. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.

MEMO

If the locator number indicators are already lit, time locations have already been registered. If you wish to re-register them, hold down **[CLEAR]** and press locator number. The indicator will go out, and the locators will be erased.

Adding Track Number Markers

By placing two or more projects one after the other in the same track, you can write these projects consecutively to the CD-R disc. In this case, you can place markers between projects to function as track numbers, just as on a pre-recorded audio CD. These track numbers will be written to the audio CD that you record on your CD-R drive.



1. While listening to the project, use the TIME/VALUE dial or SHUTTLE ring to move to the location where you wish to place a track number. You will probably find it convenient to use the Preview function (Owner's Manual p. 42) or the Scrub function (Owner's Manual p. 43).

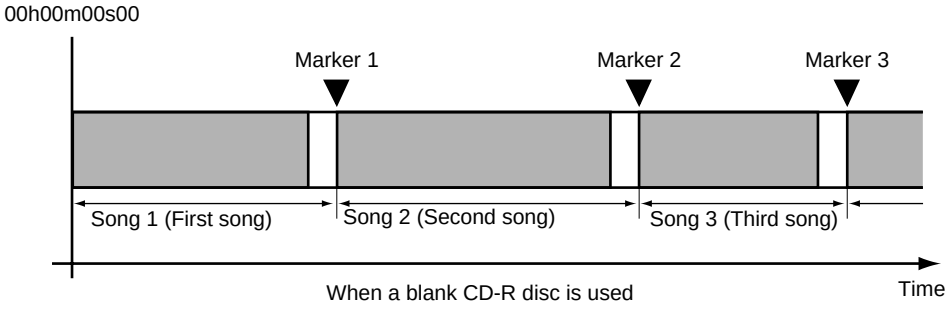
For details refer to "Setting Edit Points Using Preview" (Owner's Manual p. 42) and "Setting Edit Points Using Scrub" (Owner's Manual p. 43).

2. Hold **[CD-RW (MASTERING)]** and press **[TAP]**. A track number marker will be placed at the current time location.

3. Press **[PREVIOUS]** to move to the marker preceding the current time. Press **[NEXT]** to move to the marker next the current time.

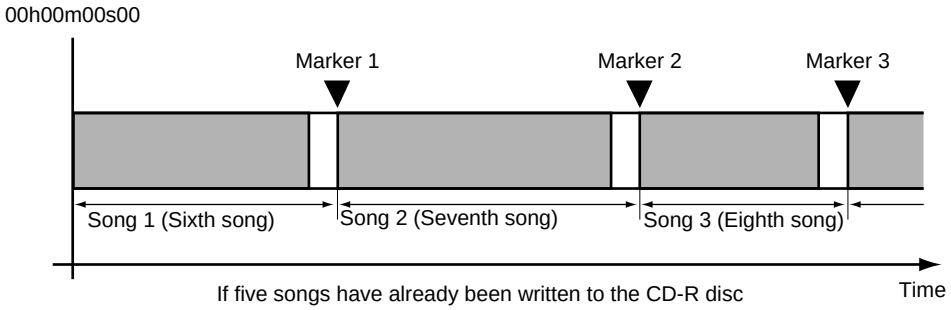
■ Assigning Track Numbers

When you write an audio CD, a track number will automatically be assigned to "00h00m00s00f." For this reason, the track number markers and the actual project order will be as follows.



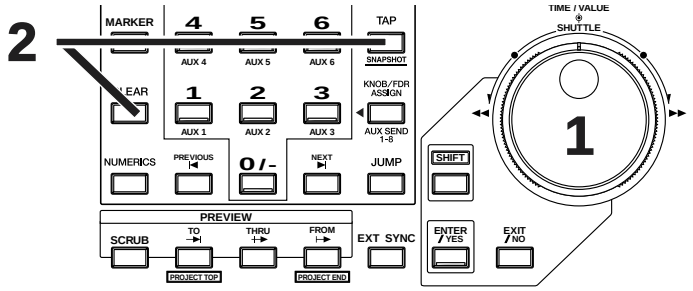
When a blank CD-R disc is used

If you write additional projects onto a CD-R disc to which projects have already been written, track numbers will be assigned in sequence to follow the previously-written projects. For example if five songs have already been written to the CD-R disc, the next song you write will be song number six.



If five songs have already been written to the CD-R disc

■ Erasing Track Number Markers



1. Move to the location where you wish to erase a marker.
2. Hold **[CLEAR]** and press **[TAP]**.

NOTE

The first track number marker is created automatically at the beginning of the project (00h00m00s00). Audio CD specifications require that a song be at least four seconds in duration. For this reason, track number markers must be placed four seconds apart. If you attempt to place a marker within four seconds of another marker, "Can't Set Marker" will be displayed and the marker will not be placed.

Audio CD standard allow up to 99 songs to be stored on one disc. Furthermore, even if no track number marker is set at the beginning of the project, it is still used for the beginning of the first song. Thus, you can set up to 98 markers as track numbers.

Creating an Original Audio CD

This chapter explains how you can create an original audio CD by recording two tracks (stereo tracks) from the VS-2480 / 2480CD to the CD recorder.

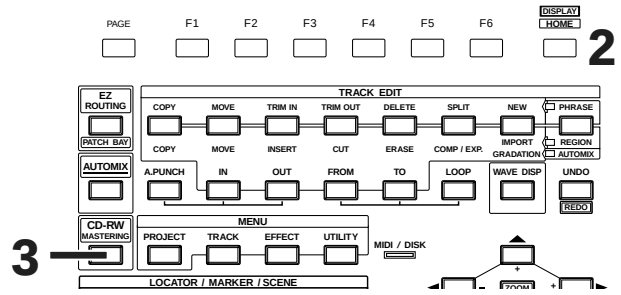
Connecting the CD-R/RW Drive VS-2480

A CD-R / RW drive allows you to use CD-R or CD-RW discs to create audio CDs. CD-R discs are the preferred format for audio CDs.

1. Make sure that the power of all devices is turned off.
2. Use a SCSI cable to connect the Roland CD recorder.
3. Turn on the power of the Roland CD recorder.
4. Turn on the power of the VS-2480.

Writing a Project to a CD-R/RW disc

When this procedure is performed, the VS-2480 / 2480CD will first create a CD-R / RW image file on its internal hard disk, and will then write that image file to the CD-R / RW disc. For this reason, there must be sufficient free space on the internal hard disk to create this image file.
All unused capacity of the hard disk will be allocated to the image file, regardless of the partition settings. The image file will be deleted automatically after it has been written to the CD-R / RW disc.



1. Insert an unused CD-R disc into the Roland CD recorder.
2. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.
3. Press **[CD-RW (MASTERING)]**. CD-RW / MASTERING menu screen will appear.

CD-RW (Appendices P. 12)
SCSI (Appendices P. 12)

NOTE

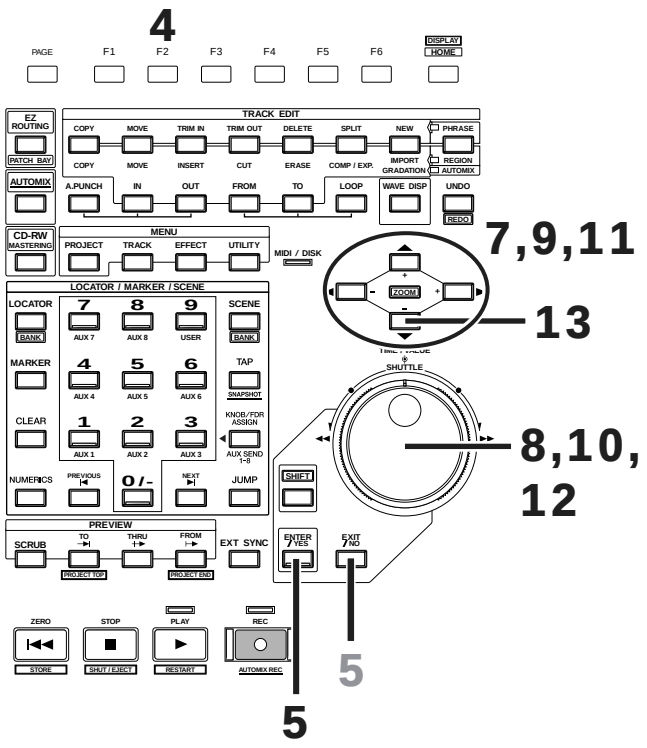
In order to create an original audio CD on the VS-2480, you will need a separately sold CD-RW drive (Roland CDR-88 series).

MEMO

Because image date is not created in situations involving specified tracks of a project when the recording mode is CDR mode, or V tracks recorded on a mastering track in CDR mode, the time it takes to write to the CD-R disc can be reduced.

NOTE

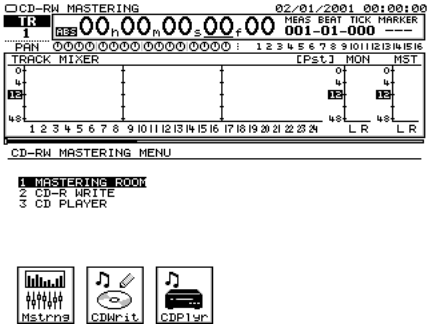
Audio CD's created using a CD-RW disc cannot be played (heard) on a conventional CD player. Please use a CD-R disc for this example.



4. Press **[F2 (CDWrit)]**.

5. "STORE Current?" dialog will appear. If you wish to store the current project before you write the CD, press **[ENTER/YES]**. If not, press **[EXIT/NO]**.

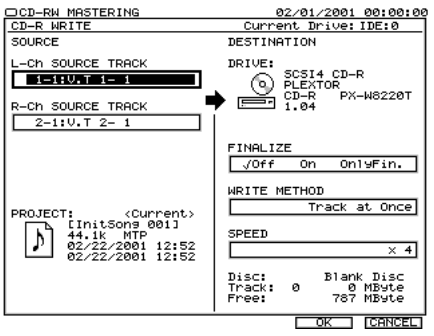
6. CD-R Write screen will appear.



7. Use **[▲][▼][◄][►]** to move the cursor to "L-Ch Source Track."

8. Use the TIME / VALUE dial to select the track that you wish to write as the Left track of the CD.

9. Use **[▲][▼][◄][►]** to move the cursor to "R-Ch Source Track."



10. Use the TIME / VALUE dial to select the track that you wish to write as the right track of the CD.

11. Use **[▲][▼][◄][►]** to move the cursor to "Finalize."

MEMO

The protected project is so that their contents cannot be modified (Project Protect (Owner's Manual p. 75)). If a protected project is selected, the "STORE Current?" message will not appear.

Finalize

"Finalize" means to write the TOC (Table Of Contents) to the audio CD created by the VS-2480 / 2480CD.
If a CD-R disc has not been finalized, additional songs can be written to the unused area of that disc. However, such a disc cannot be played back on a conventional CD player. The CD player function of the VS-2480 / 2480CD allows you to audition a disc even before (or after) it has been finalized.
A finalized CD-R disc can be played back on a conventional CD player in the same way as a commercial pre-recorded audio CD. However it will no longer be possible to record additional songs, even if there is unused space on that disc.

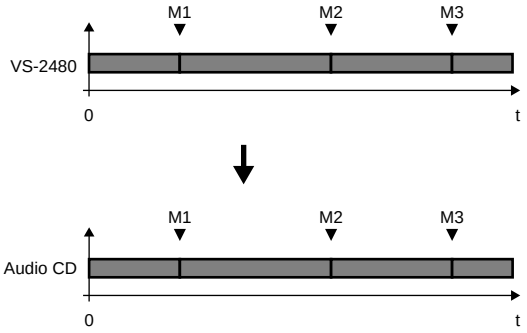
Finalize (Appendices P. 12)
TOC (Appendices P. 13)

12. Use the TIME / VALUE dial to specify whether or not to finalize the CD-R / RW disc after writing the project. For this example, select "Off."

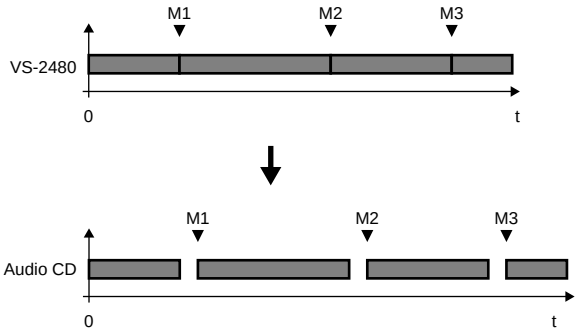
13. Press **[▼]**. The cursor will move to "Write Method."

About Write Method

Disc at Once:
The project data and the track number markers attached to the project data will be written to the CD-R / RW disc without change. However, additional project data cannot be added later to a CD-R / RW disc that was written using Disc at Once.
(it will be in the same condition as if finalize had been performed.)



Track at Once:
Two seconds of silence will automatically be written to the CD-R disc before each track number marker attached to the project data. (This is the same condition as when additional projects are written to the disc later.)Additional project data can be written to a CD-R disc that was written using Track at Once.



14. When two or more projects are written to the disc at the same time, select how the data will be written. For this example, select "Track at Once."

15. Press **[▼]**. The cursor will move to "CD Speed."

MEMO

For example, if you have assigned track numbers to a medley of songs, disk at Once would be the appropriate choice. This is because Track at Once would add approximately two seconds of silence, which would cause the playback to sound fragmented.

MEMO

If you will be giving your CD to a mastering (production) facility, select Disk At Once. For details, contact the CD production facility.

Writing speed to CD-R (For example)

MAX: Write to the disc with the maximum speed.
x4: The project will be written at quad speed.
x2: The project will be written at double times speed.

When writing speed is early many time is not required.
However, in many instances where a disc could not be written to successfully, it is due to the fact that the speed was just too fast for processing to take place reliably.

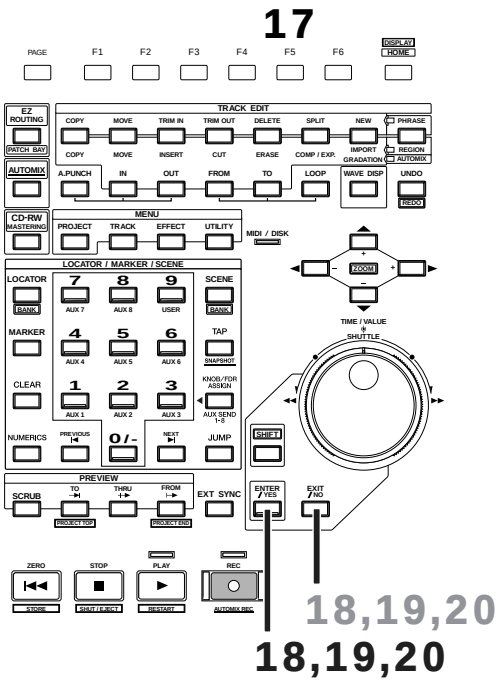
NOTE
The speeds that can be selected will depend on the CD-R/RW drive you use.

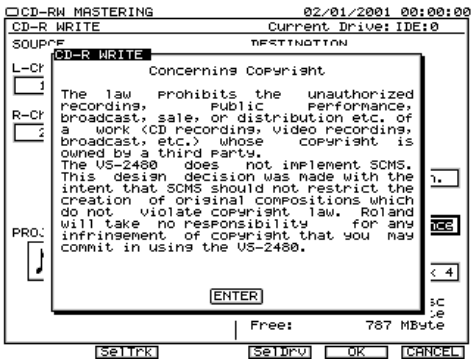
16. Use TIME/VALUE dial to select the speed at which the project will be written to the CD-R/RW disc.

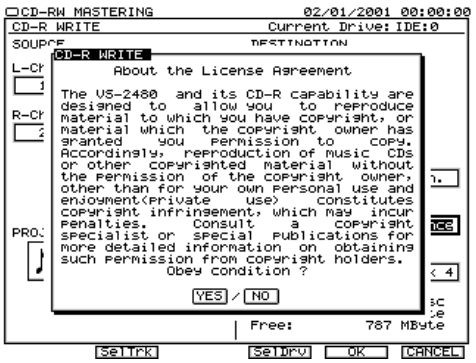
17. Press **[F5 (OK)]**. "Audio CD-R Write Sure?" message will appear.

18. Press **[ENTER/YES]**. A message with license agreement will appear.

19. Please read the message carefully, and if you accept the agreements, press **[ENTER/YES]**. The VS-2480/2480CD will begin writing to the CD-R/RW disc. If you do not accept the agreements, press **[EXIT/NO]**. You will return to CD-R WRITE screen.




CD-RW MASTERING
02/01/2001 00:00:00
CD-R WRITE
Current Drive: IDE:0
SOURCE
DESTINATION
CD-R WRITE
Concerning Copyright
The law prohibits the unauthorized recording, public performance, broadcast, sale, or distribution etc. of a work (CD recording, video recording, broadcast, etc.) whose copyright is owned by a third party.
The VS-2480 does not implement SCMS. This design decision was made with the intent that SCMS should not restrict the creation of original compositions which do not violate copyright law. Roland will take no responsibility for any infringement of copyright that you may commit in using the VS-2480.
ENTER
Free: 787 MByte
SelTrk
SelDrv
OK
CANCEL


CD-RW MASTERING
02/01/2001 00:00:00
CD-R WRITE
Current Drive: IDE:0
SOURCE
DESTINATION
CD-R WRITE
About the License Agreement
The VS-2480 and its CD-R capability are designed to allow you to reproduce material to which you have copyright, or material which the copyright owner has granted you permission to copy. Accordingly, reproduction of music CDs or other copyrighted material without the permission of the copyright owner, other than for your own personal use and enjoyment(private use) constitutes copyright infringement, which may incur penalties. Consult a copyright specialist or special publications for more detailed information on obtaining such permission from copyright holders.
Obey condition ?
YES / NO
Free: 787 MByte
SelTrk
SelDrv
OK
CANCEL

20. When the data has been written, the display will ask "Write Another?" (Write another disc?)

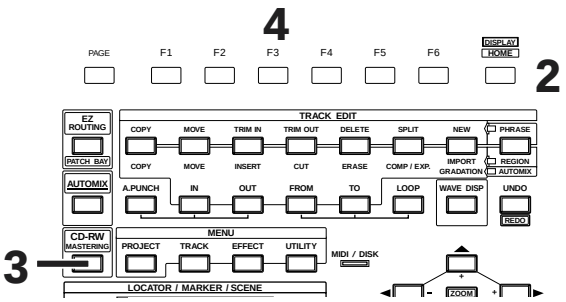
If you wish to write the same project data to another CD-R/RW disc, insert the new disc into your CD-R/RW drive, and press **[ENTER/YES]**. If you press **[EXIT/NO]** you will return to CD-R WRITE screen.

Auditioning the Project You Wrote

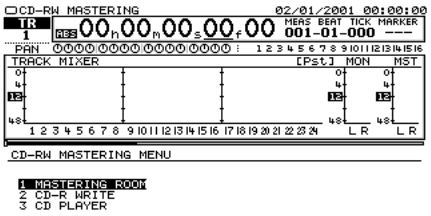
To check (audition) the project you wrote to the disc, use the following procedure.

1. Insert the CD-R disc into the CD-R/RW drive.

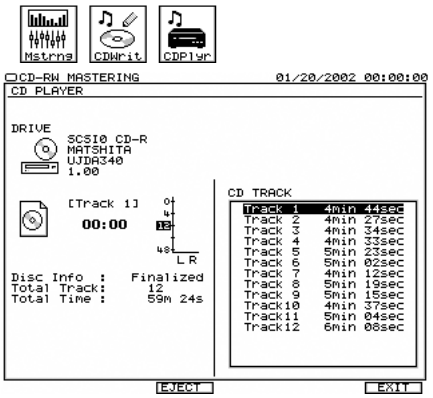
2. Press **[HOME (DISPLAY)]**. Home Condition screen will appear.



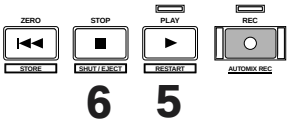
3. Press **[CD-RW (MASTERING)]**. CD-RW/Mastering menu screen will appear.



4. Press **[F3 (CDPlyr)]**.



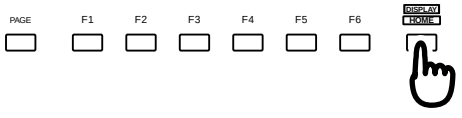
5. Press **[PLAY]**. The CD will begin playing back. Use the master fader and the MONITOR knob to adjust the volume to a convenient listening level. At CD player function, only the following buttons, knobs, and faders will be active.



[ZERO]: Move to the beginning of the first track.
SHUTTLE ring ◄◄ :Rewind as long as you continue to turn the SHUTTLE ring.
SHUTTLE ring ►► :Fast-forward as long as you continue to turn the SHUTTLE ring.
[STOP]: Stop.
[PLAY]: Begin playback from the current location.
[PREVIOUS]: Return to the previous song.
[NEXT]: Advance to the next song.
MASTER FADER: Adjust the overall volume.
MONITOR knob: Adjust the volume of the MONITOR jacks.
PHONES knob: Adjust the volume of the headphones.

6. When you are finished playing back, press **[STOP]**.

7. Press **[HOME (DISPLAY)]**. Return to the Home Condition screen.



?
Finalize (Appendices P. 12)

NOTE
You can listen to the contents of the disc only through the VS-2480's MASTER output, MONITOR output, or from the PHONES jack. You cannot output the audio from the CD-R/RW headphone jack or AUDIO OUT jacks.

NOTE
Audio CD's created using a CD-RW disc cannot be played (heard) on a conventional CD player. At this time, you can audition a disc on the CD player function of the VS-2480.

NOTE
SHUTTLE ring active when be stopping.

PROJECT 1
"What You Don't Know"
by Roby Duke

©2001 Roland Corporation

Track Sheet

	Vtr1	Vtr2	Vtr3	Vtr4	Vtr5	Vtr6	Vtr7	Vtr8	Vtr9	Vtr10	Vtr11	Vtr12	Vtr13	Vtr14	Vtr15	Vtr16
Tr1	Kick						Intro2 Rhythm/Ki	Perc Rhythm L		Perc Toys 2 L	Perc Toys 1 L					
Tr2	Snare						Intro2 Rhythm/ht	Perc Rhythm R		Perc Toys 2 R	Perc Toys 1 R					
Tr3	Hat						Intro2 Hat									
Tr4	Floor				Lead Gtr 1		Intro2 Conga/TmO	Conga Ed OH	Conga 3 OH		Conga 2 OH	Conga 1 OH				
Tr5	OH Cmp L				Conga Ed L		Intro2 Conga/TmL	Conga Ed L	Conga 3 L		Conga 2 L	Conga 1 L				
Tr6	OH Cmp R				Conga Ed R		Intro2 Conga/TmR	Conga Ed R	Conga 3 R		Conga 2 R	Conga 1 R				
Tr7	Toy Perc L				Toy Perc L		Intro2 Toys L	Toy Perc L	Perc Toys L							
Tr8	Toy Perc R				Toy Perc R		Intro2 Toys R	Toy Perc R	Perc Toys R							
Tr9	TaosDr Ed L				TaosDr Ed L		Intro2 Taos L									
Tr10	TaosDr Ed R				TaosDr Ed R		Intro2 Taos R									
Tr11	Fretless 2		Fretted 2 Noisy	Thumb Bs			intro2 Fretless									
Tr12																
Tr13	Key Cmp L						intro2 Kbd L									
Tr14	Key Cmp R						Intro2 Kbd R									
Tr15	AC Gtr1						Intro2 AC 1									
Tr16	AC Gtr2						Intro2 AC 2									
Tr17	Rev Gtr L						Intro2 Cello L									
Tr18	Rev Gtr R						Intro2 Cello R									
Tr19	RhythmGtr1						Intro2 RythmGtr1									
Tr20	RhythmGtr2						Intro2 RythmGtr2									
Tr21	Lead Gtr 1	Blues Lead	Early Lead			Ld Gtr Dry w/ FX	Intro2 Lead Gtr									Slide Lead
Tr22	LeadVox						Intro2 Lead Vox									
Tr23	Bgn Vx L	Dry Lead 1					Intro2 BgnVox L									
Tr24	Bgn Vx R	Dry Lead 1					Intro2 BgnVox R									

LOCATORS

Locate00	Verse 1
Locate01	Pre-Chorus 1
Locate02	Chorus 1
Locate03	Pre-Chorus 2
Locate04	Chorus 2
Locate05	Space Bridge
Locate06	Solo Pickup
Locate07	Pre-Chorus 3
Locate08	Chorus 3
Locate09	Ending Space Jam

SCENES

Scene00	
Scene01	Default Mix
Scene02	Guitar Solo Wet/Dry
Scene03	Acoustic Mix
Scene04	Longer Acoustic Intro to Default Mix
Scene05	Pad Scene
Scene06	
Scene07	
Scene08	
Scene09	

CREDITS

VOCALS:	Loni Rose
BASS:	Michael Barrett
GUITARS:	Johnny DiMarco
	Phil Gates
	Roby Duke
KEYBOARD:	Igor Len
PERCUSSION:	Brad Dutz

PROJECT 2
"Don't Stop"
by Teddy Riley

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Track Sheet

	Vtr1	Vtr2	Vtr3	Vtr4	Vtr5	Vtr6	Vtr7	Vtr8	Vtr9	Vtr10	Vtr11	Vtr12	Vtr13	Vtr14	Vtr15	Vtr16
Tr1	RHYTHM L															RHYTHM L
Tr2	RHYTHM R															RHYTHM R
Tr3	SYNTH L															SYNTH L
Tr4	SYNTH R															SYNTH R
Tr5	STABS L															STABS L
Tr6	STABS R															STABS R
Tr7	VOCAL CHORUS L															VOCAL CHORUS L
Tr8	VOCAL CHORUS R															VOCAL CHORUS R
Tr9	VOX ACCENTS L															VOX ACCENTS L
Tr10	VOX ACCENTS R															VOX ACCENTS R
Tr11	FILTER VOX L															FILTER VOX L
Tr12	FILTER VOX R															FILTER VOX R
Tr13	LEAD VOX L															LEAD VOX L
Tr14	LEAD VOX R															LEAD VOX R
Tr15	Pad Rhythm GateL															Pad Rhythm GateL
Tr16	Pad Rhythm GateR															Pad Rhythm GateR
Tr17																
:																
Tr24																

LOCATORS

Locate00	
Locate01	Intro
Locate02	Intro w/Rhythm
Locate03	First Verse
Locate04	Second Verse
Locate05	Chorus
Locate06	Third Verse
Locate07	Fourth Verse
Locate08	Chorus
Locate09	Ending

SCENES

Scene00	Default Mix
Scene01	Pad Playback
Scene02	
Scene03	
Scene04	
Scene05	
Scene06	
Scene07	
Scene08	
Scene09	

CREDITS

Artists:	Teddy Riley
	PI
	E. Benton
	L. Kafi
Producer:	Teddy Riley
Co-Producer:	
Writers:	T. Riley, PI, E. Benton, L. Kafi
Publishers:	Donril Music / Zomba Music Publishing(ASCAP),
	Melodic Noise Music(ASCAP),
	Lacoriya's Songs(ASCAP)
Engineered by:	George Mayers
Mixed by:	Teddy Riley, George Mayers
Studio:	Future Recording Studio

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Information

When you need repair service, call your nearest Roland Service Center or authorized Roland distributor in your country as shown below.

AFRICA

EGYPT
Al Fanny Trading Office
9, EBN Hagar A1 Askalany Street,
ARD E1 Golf, Heliopolis,
Cairo 11341, EGYPT
TEL: 20-2-417-1828

REUNION
Maison FO - YAM Marcel
25 Rue Jules Hermann,
Chaudron - BP79 97 491
Ste Clotilde Cedex,
REUNION ISLAND
TEL: (0262) 218-429

SOUTH AFRICA
That Other Music Shop (PTY) Ltd.
11 Melle St., Braamfontein,
Johannesbourg, SOUTH AFRICA

P.O.Box 32918, Braamfontein 2017
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02902301 '02-1-A3-11KS